

FIG. 1 is a block diagram of a multimedia system 10. The system 10 includes a multimedia server 12, a plurality of channels 36, and a multimedia source 24. The multimedia source 24 is connected to the multimedia server 12 via a satellite connection, cable connection, antenna connection, etc. The multimedia server 12 is connected to a plurality of client modules 14, 16, 18, 20, 22, 26, 28, 30, 32, 34. The client modules 14, 16, 18, 20, 22, 26, 28, 30, 32, 34 are connected to the multimedia server 12 via a plurality of channels 36. The client modules 14, 16, 18, 20, 22, 26, 28, 30, 32, 34 are connected to the multimedia server 12 via a plurality of channels 36. The client modules 14, 16, 18, 20, 22, 26, 28, 30, 32, 34 are connected to the multimedia server 12 via a plurality of channels 36.

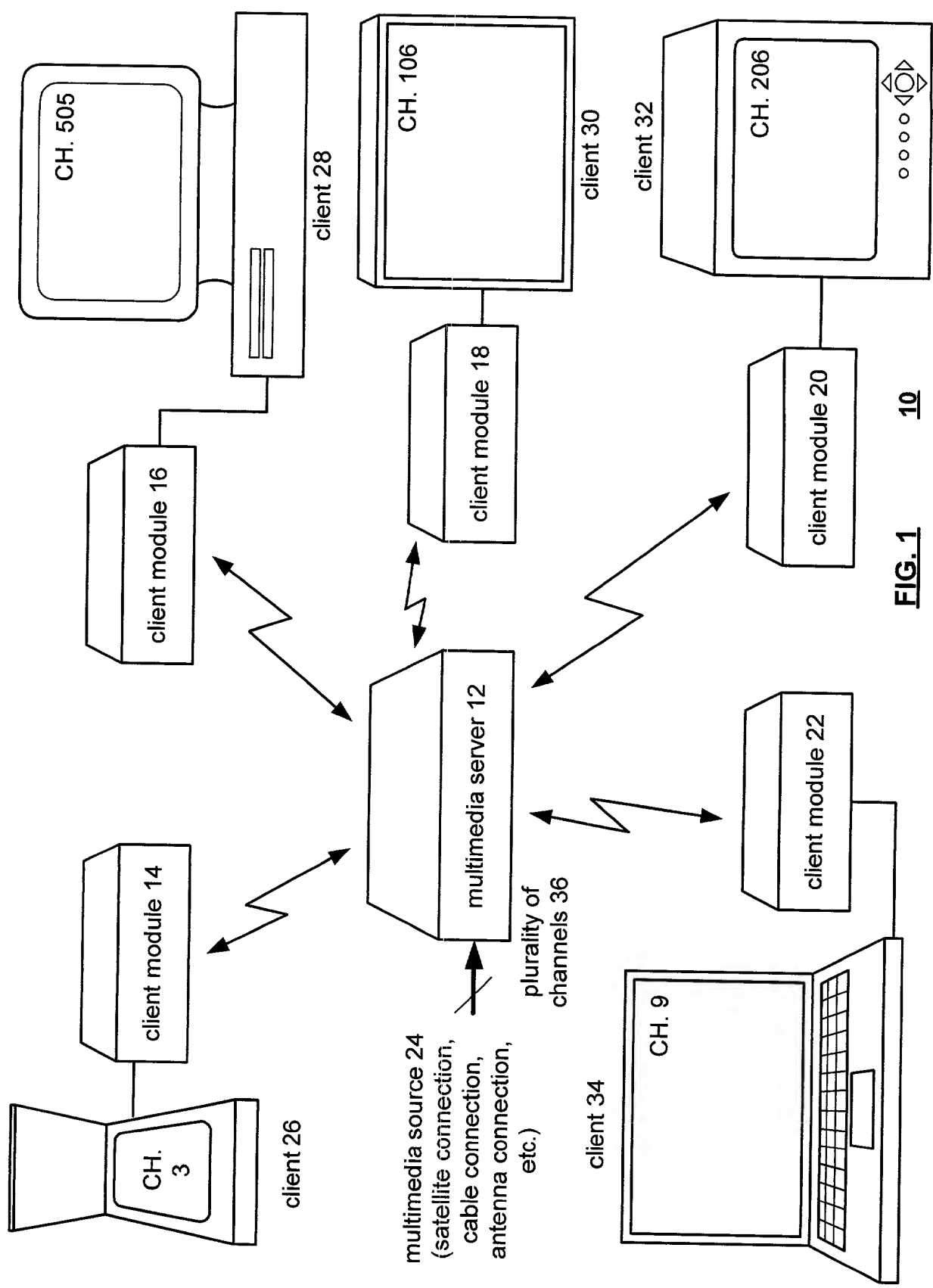


FIG. 2 is a block diagram of a multimedia server system 40. The system includes a multimedia server 42 connected to a public switched telephone network 66 and a wide area network 44. The server 42 is also connected to several client modules: client module 46 (with email 64), client module 48, client module 50, client module 52, and client module 54. Client 26 is a PDA with email 64. Client 28 is a desktop computer with email 62 and intercom 68. Client 30 is a desktop computer with web page 60 and intercom 68. Client 32 is a desktop computer with web page 58. Client 34 is a laptop with web page 56 and telephone 70. Bidirectional arrows indicate communication between the server and the client modules.

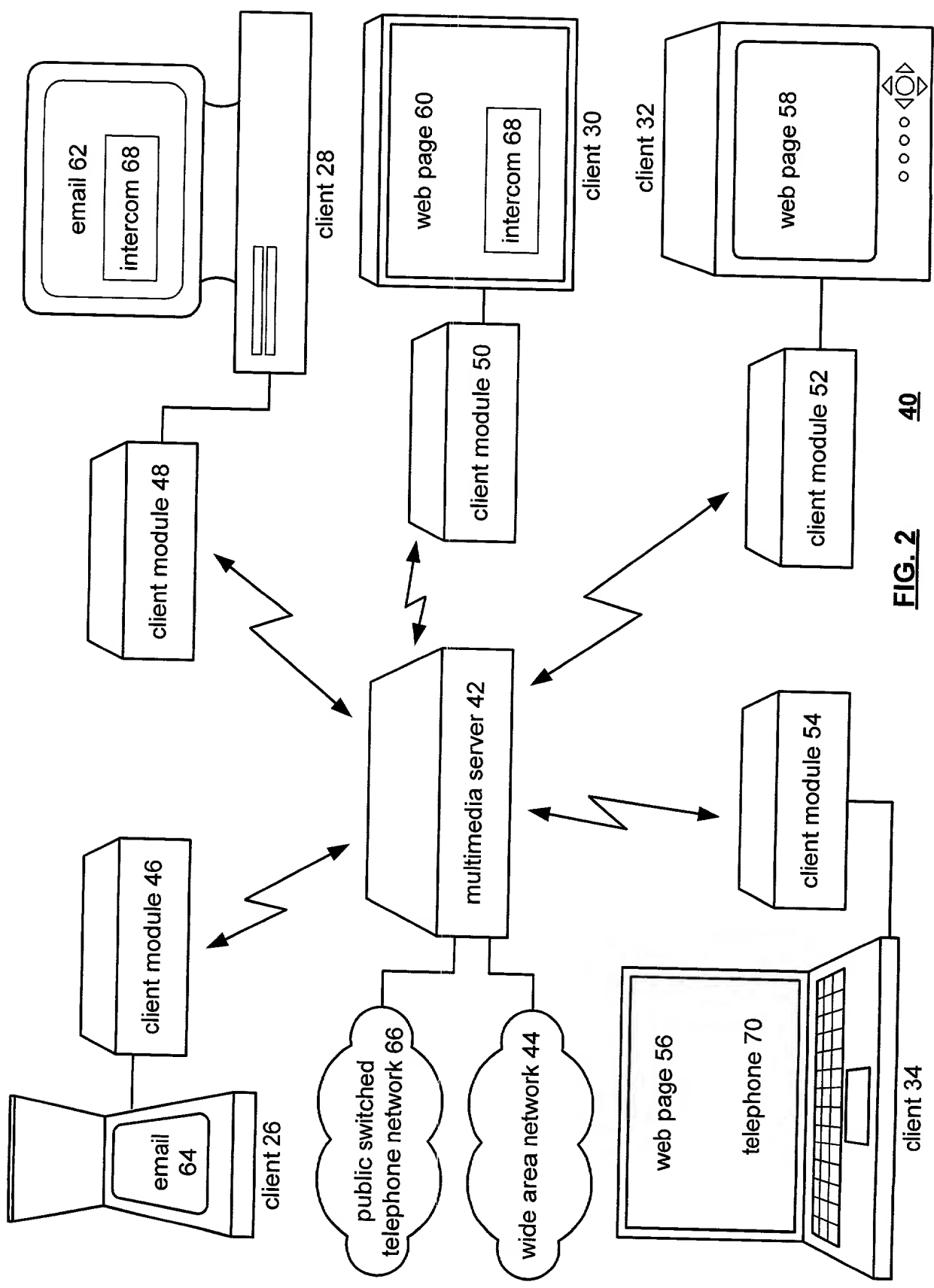


FIG. 2 40

FIG. 3 is a block diagram of a multimedia system 80. The system 80 includes a multimedia server 88 and a plurality of client modules 90, 92, 94, 96, 98. The multimedia server 88 is connected to a DVD player 82 and a VCR 86. The multimedia server 88 is also connected to a VCR playback 87 and a DVD playback 83. The multimedia server 88 is connected to client modules 90, 92, 94, 96, and 98. The client modules 90, 92, 94, 96, and 98 are connected to various playback devices 87 and 83. The client modules 90, 92, 94, 96, and 98 are also connected to a network 80.

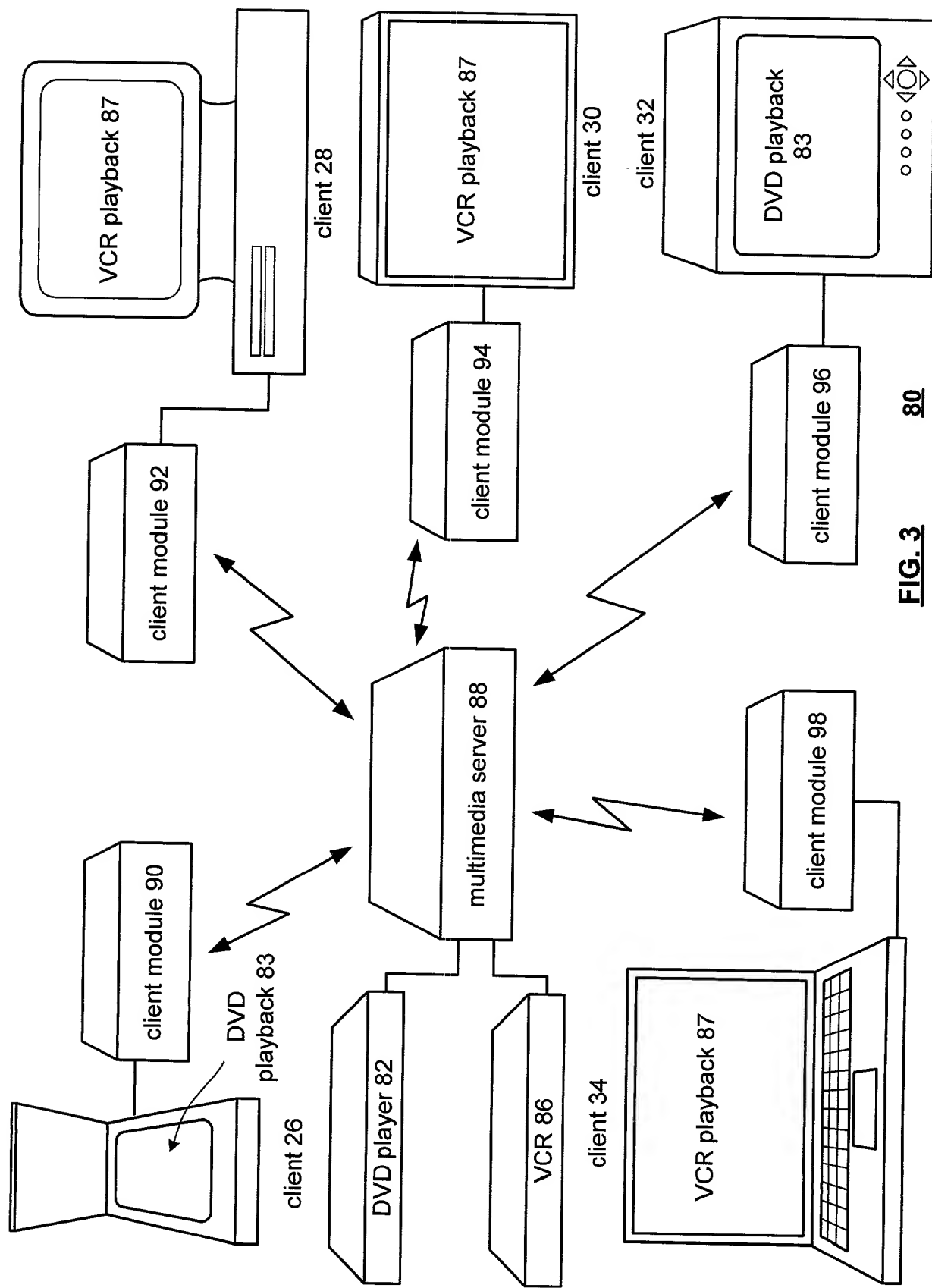


FIG. 3 80

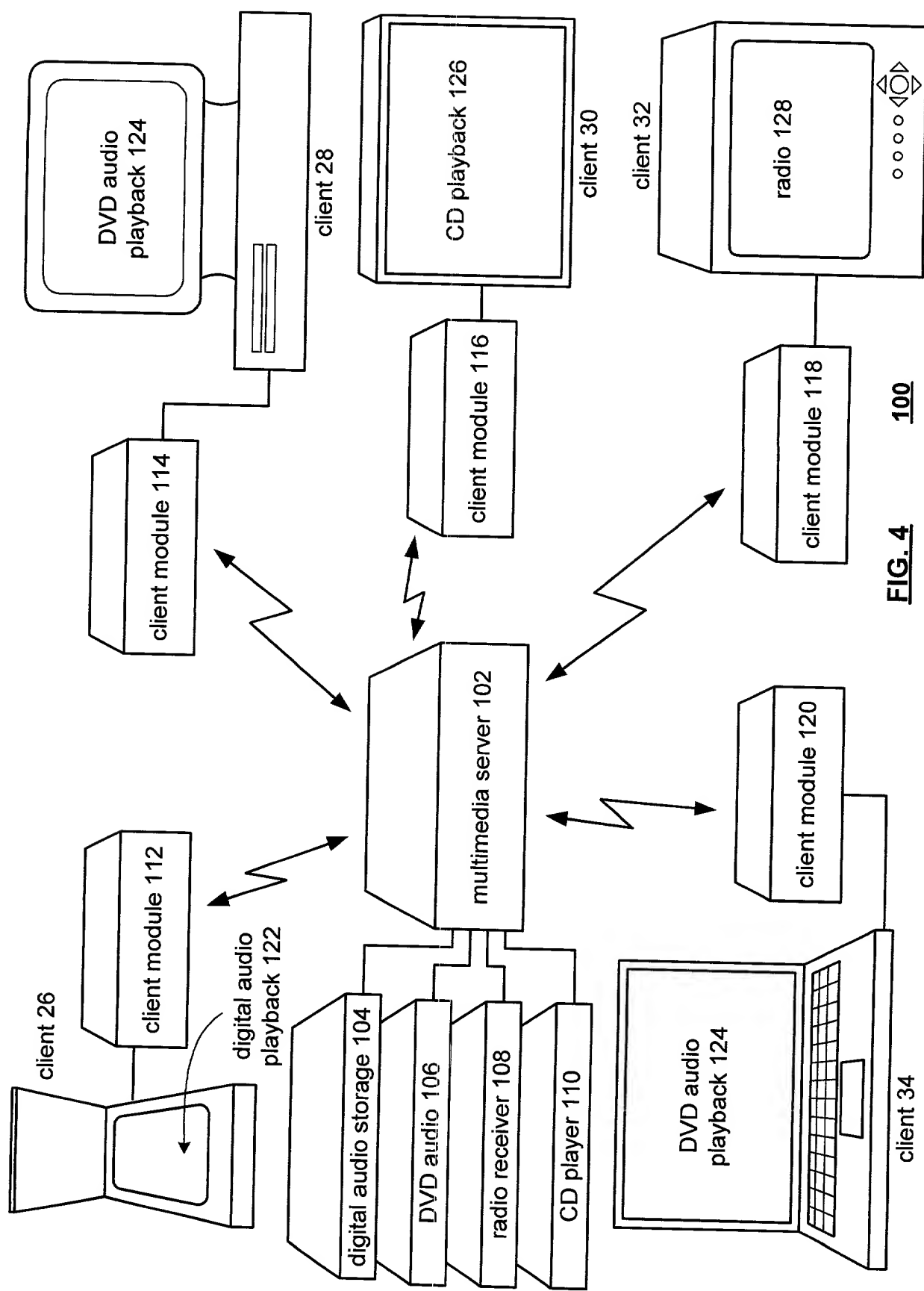


FIG. 4

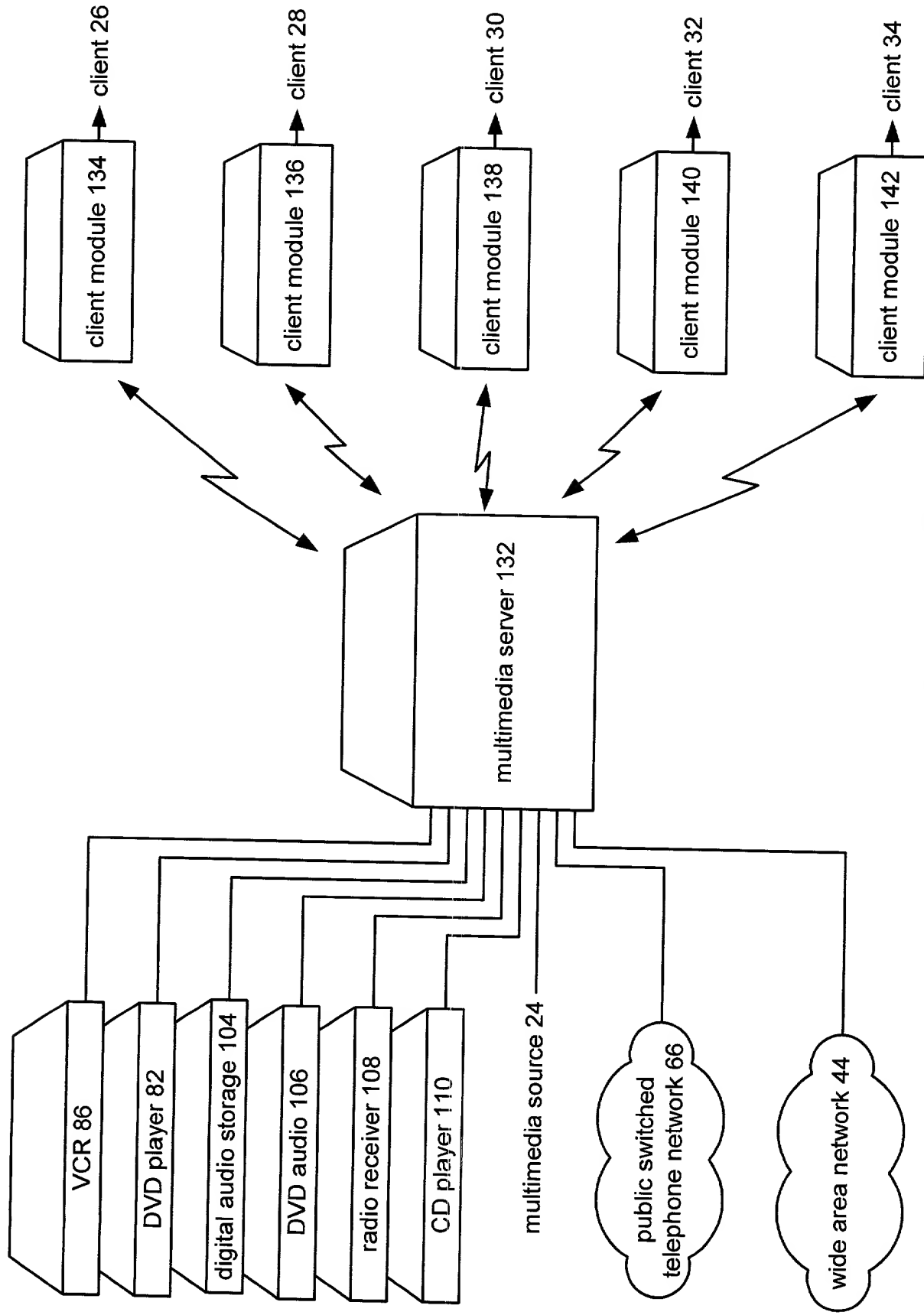


FIG. 5 130

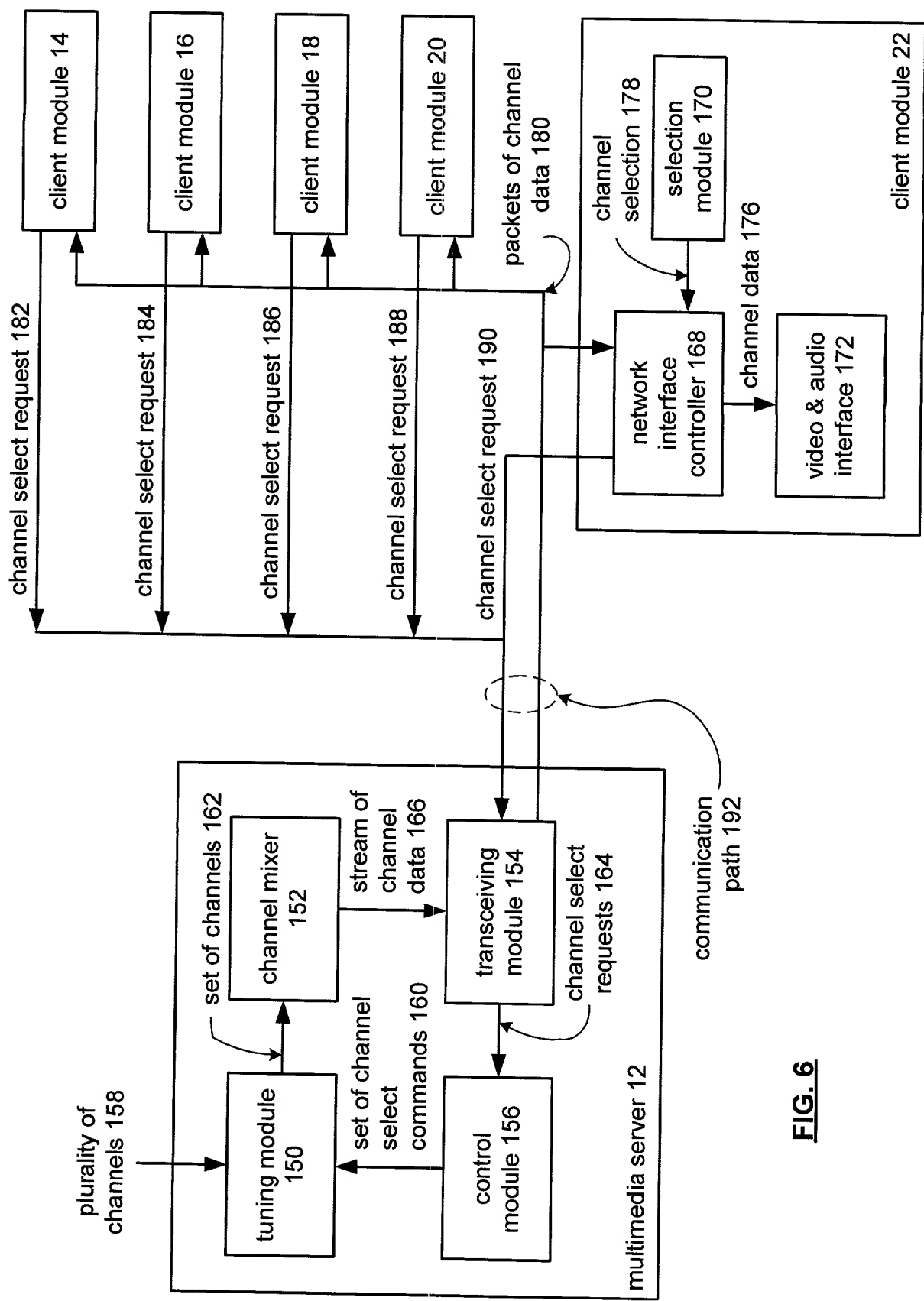


FIG. 6

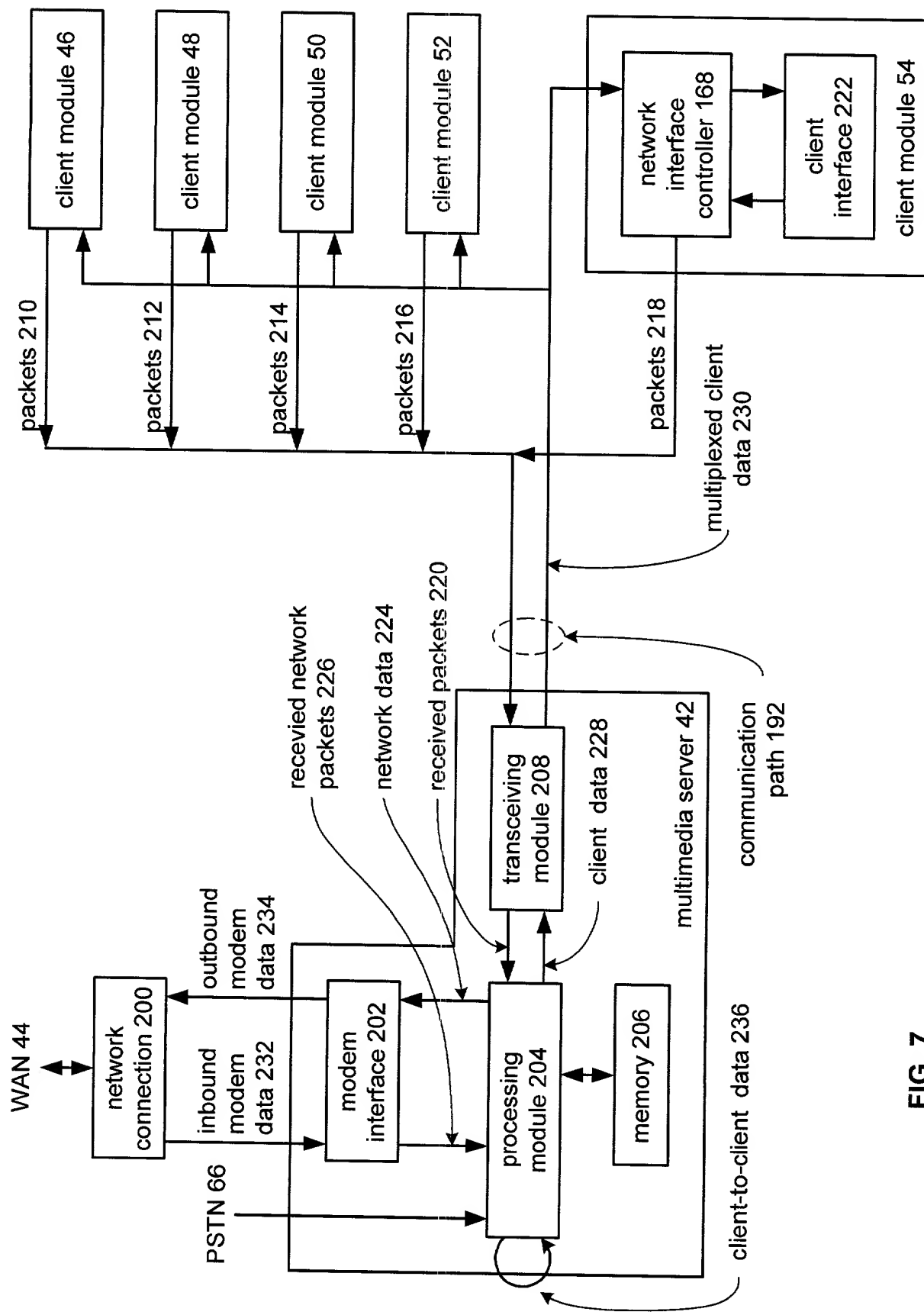


FIG. 7

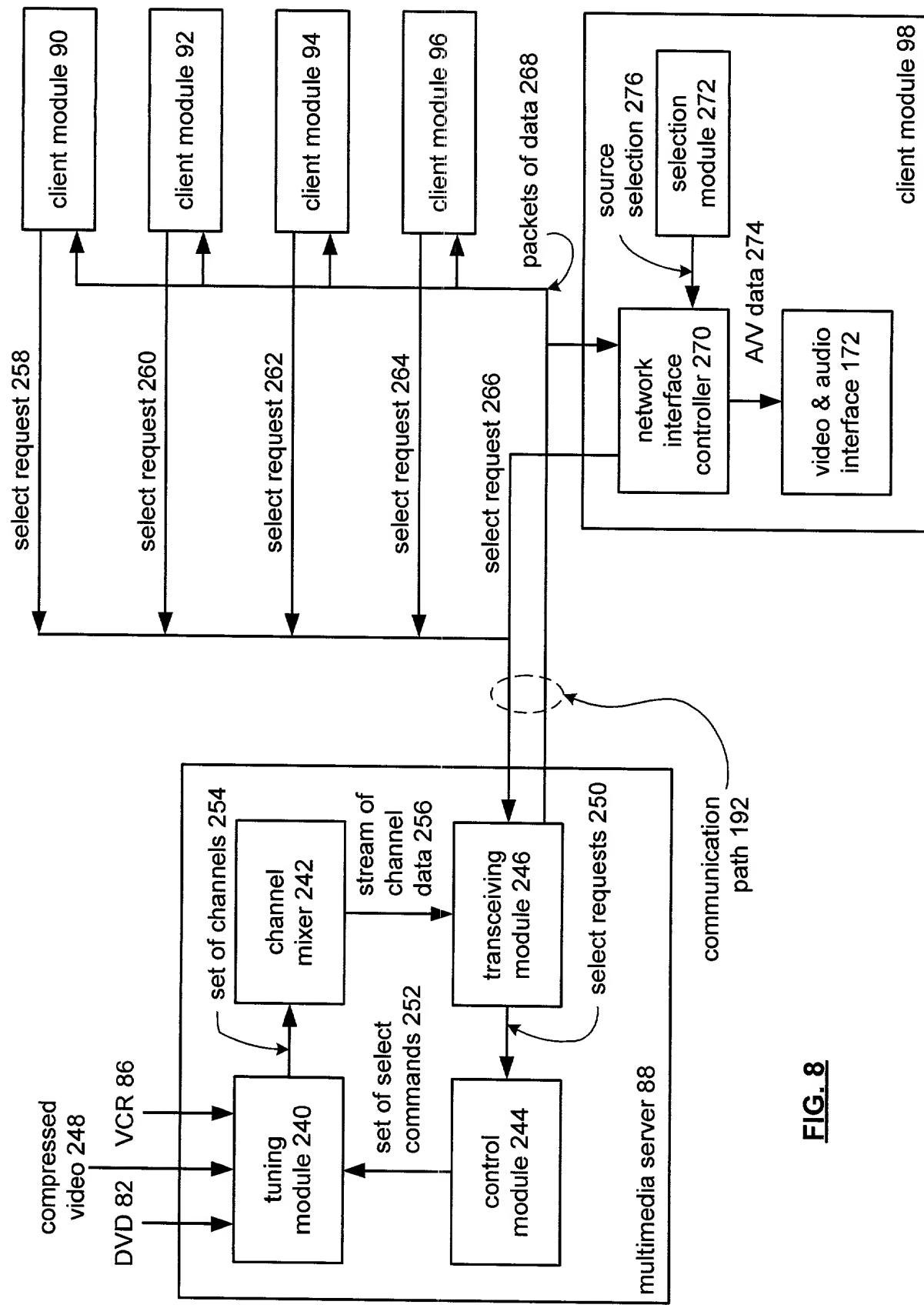


FIG. 8

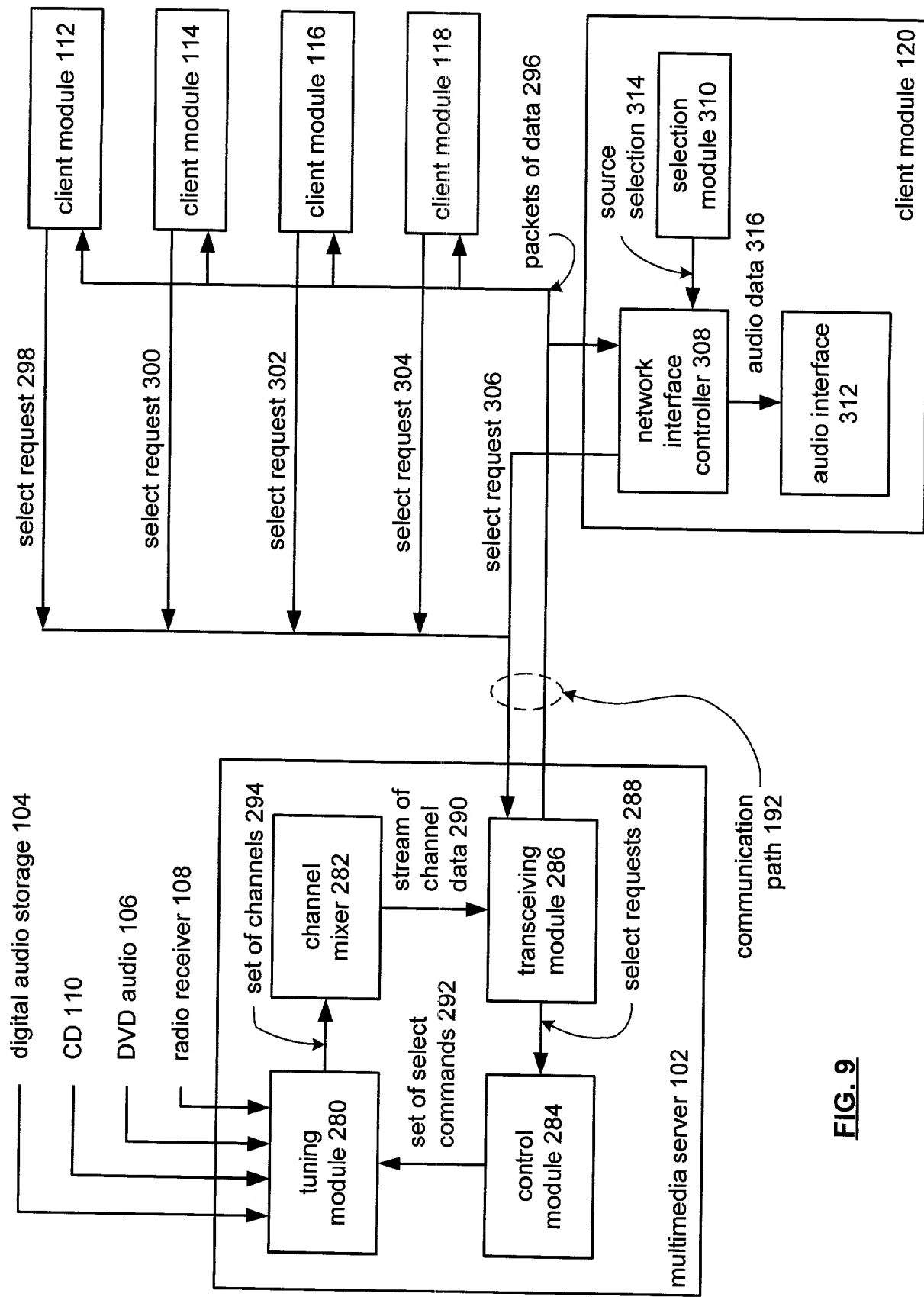


FIG. 9

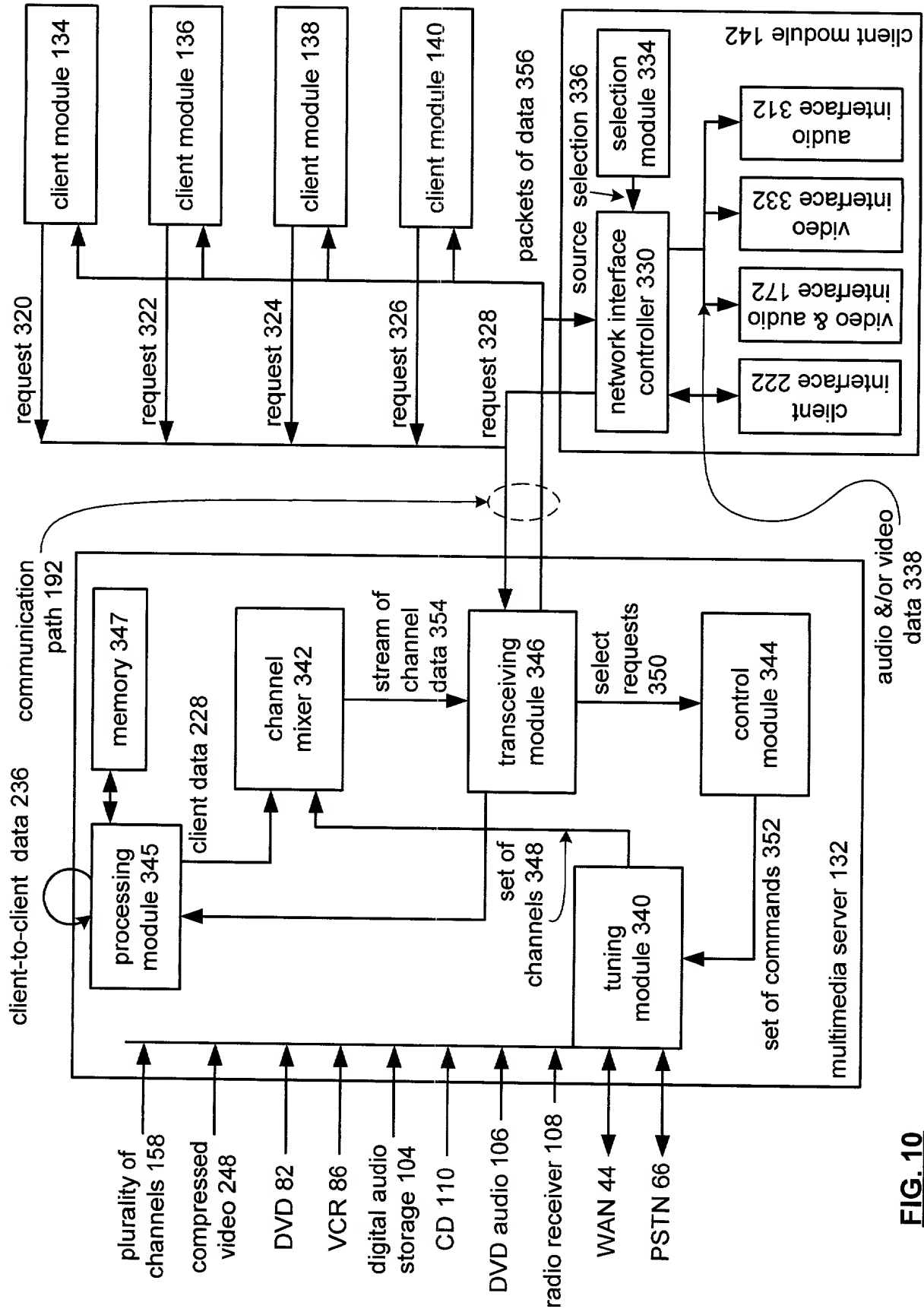


FIG. 10

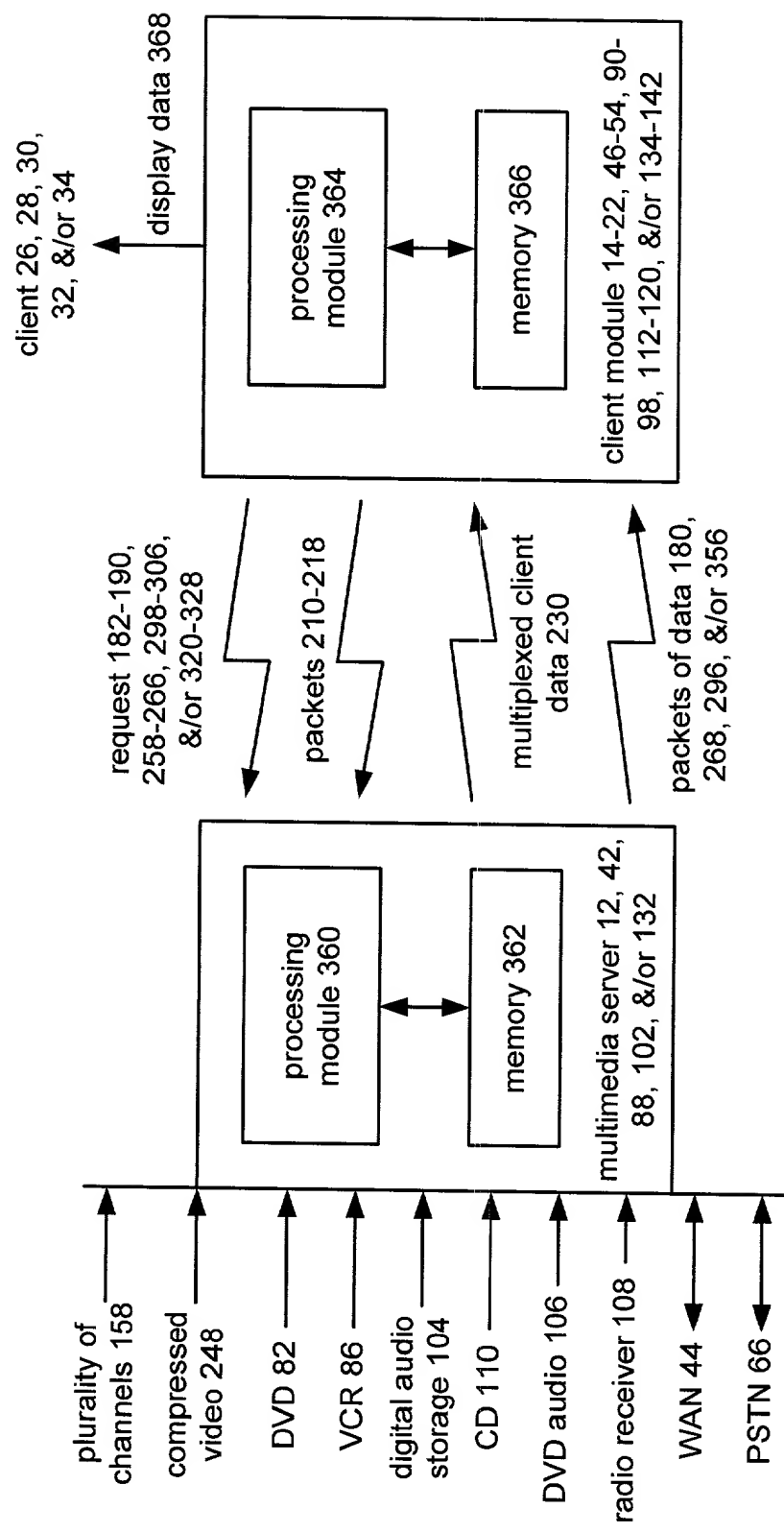


FIG. 11

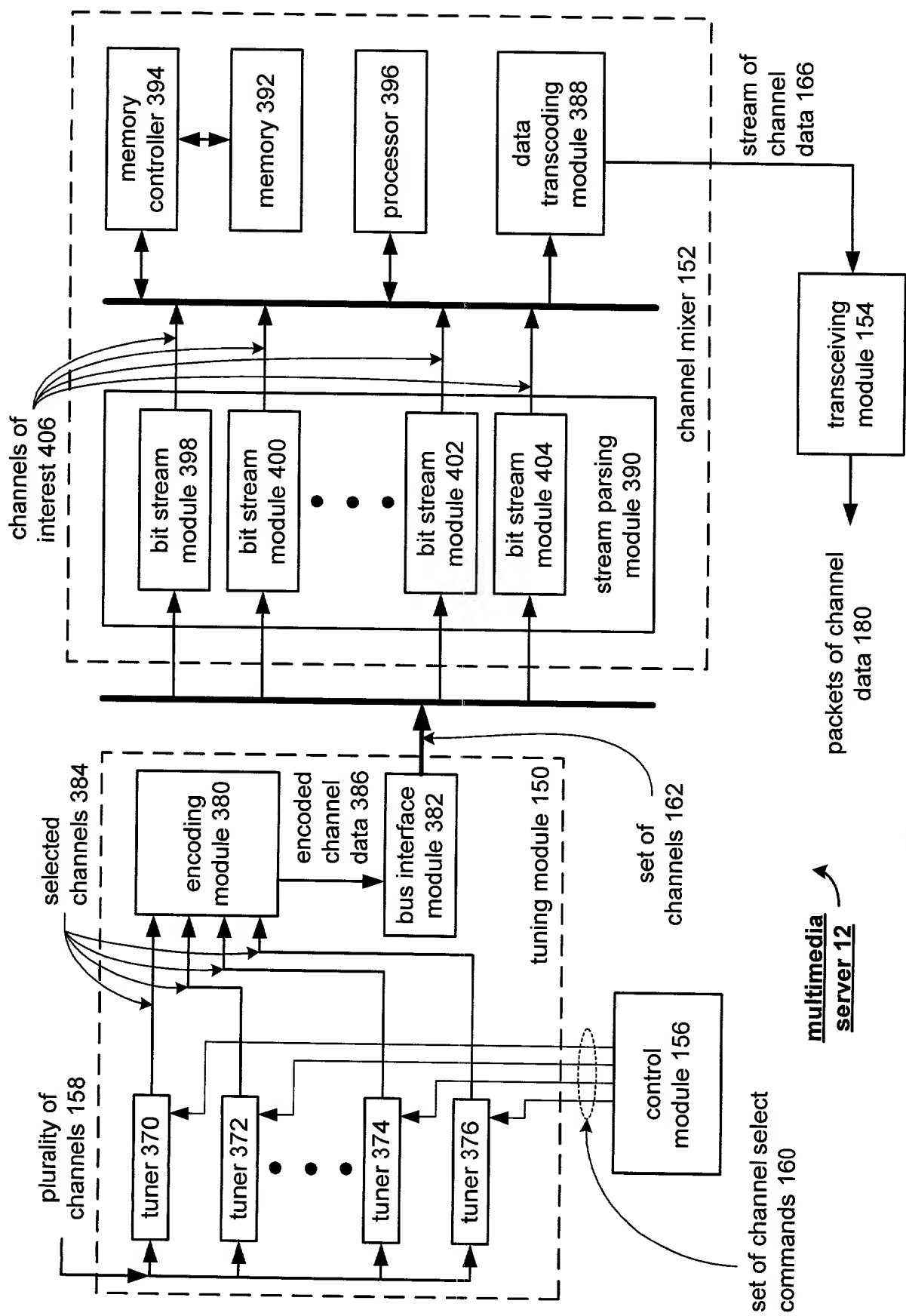


FIG. 12

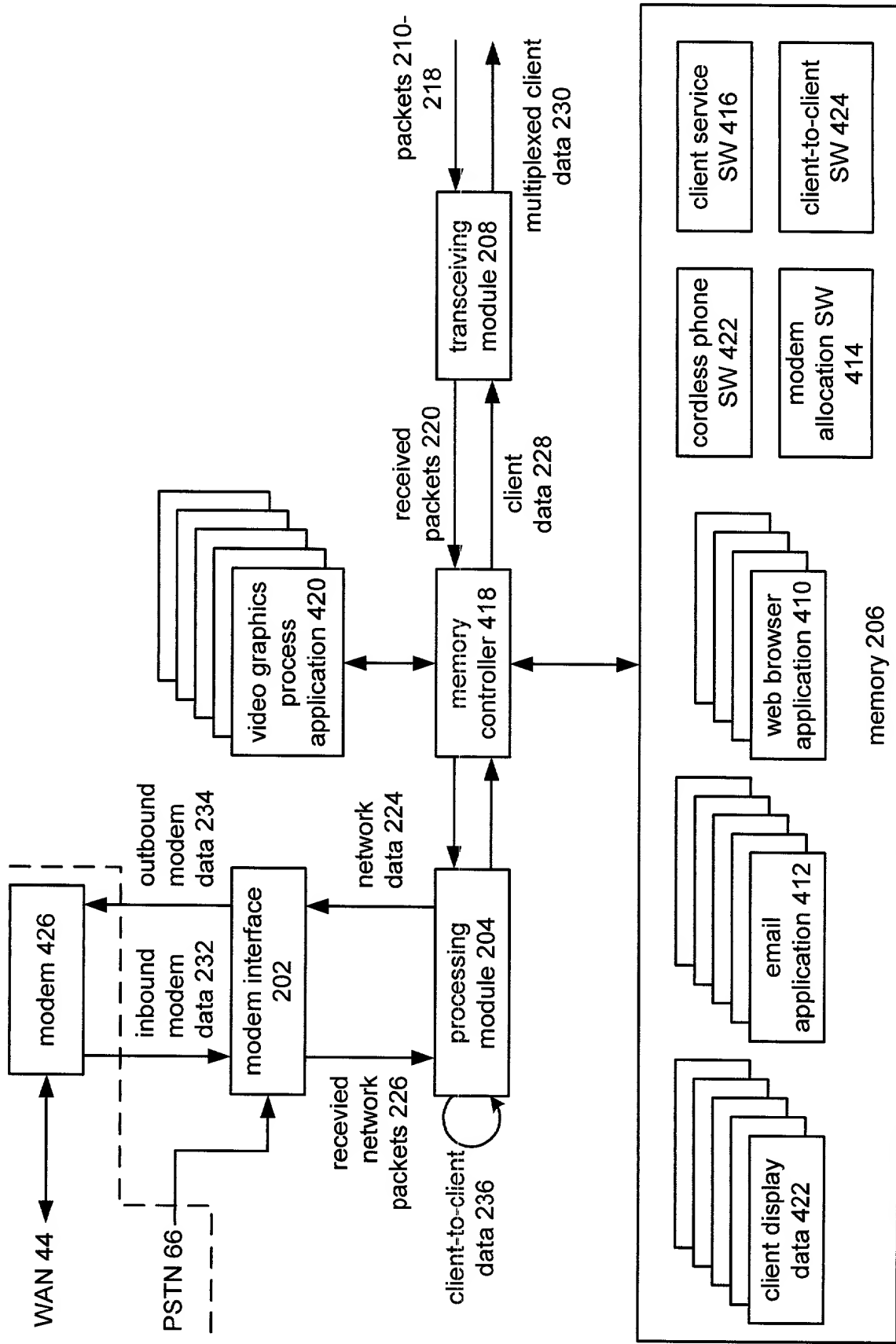


FIG. 13

multimedia server 42

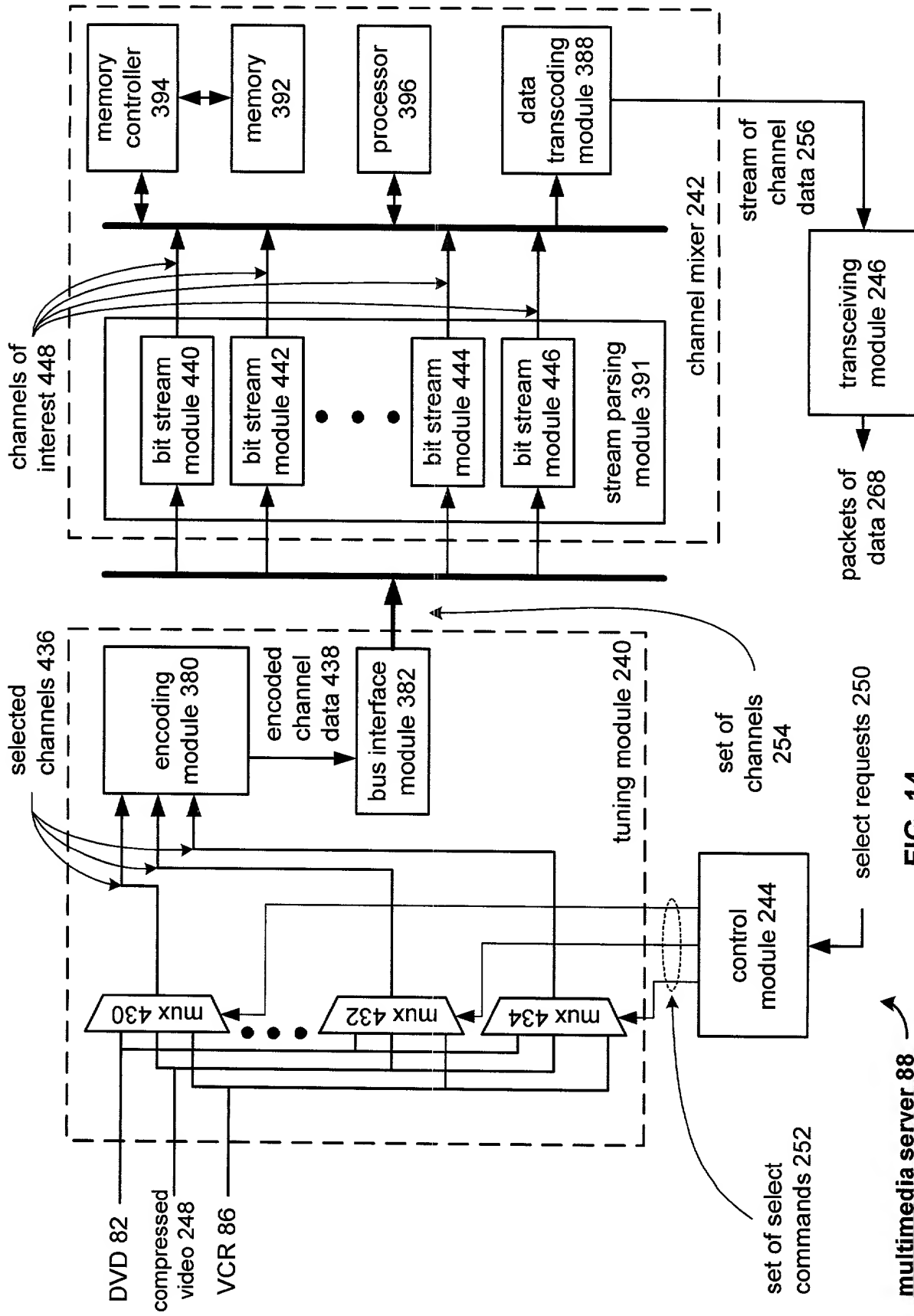


FIG. 14

FIG. 15 is a block diagram of a multimedia server 102, according to one embodiment of the present invention. The multimedia server 102 includes a set of select commands 292, a set of channels 294, a control module 284, a set of select requests 288, a tuning module 280, a bus interface module 382, an encoding module 464, a set of selected channels 462, a set of bit stream modules 470, 472, 474, 476, a stream parsing module 393, a channel mixer 282, a data transcoding module 388, a processor 396, a memory 392, and a memory controller 394. The multimedia server 102 also includes a DVD audio 106, a CD 110, digital audio storage 104, a radio receiver 108, a set of tuners 450, 452, 454, a set of multiplexers 456, 458, 460, and a set of packets of data 296.

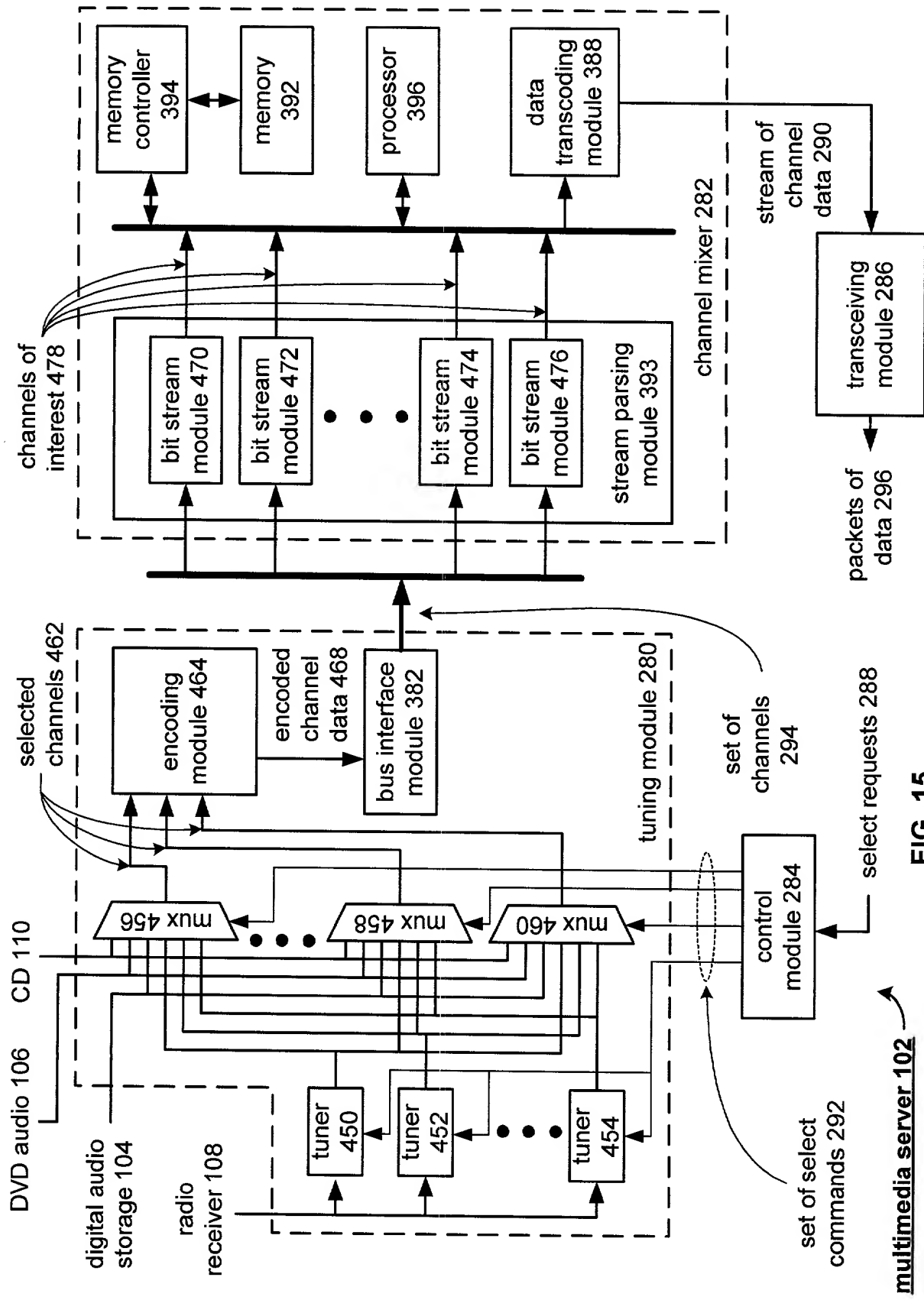


FIG. 15

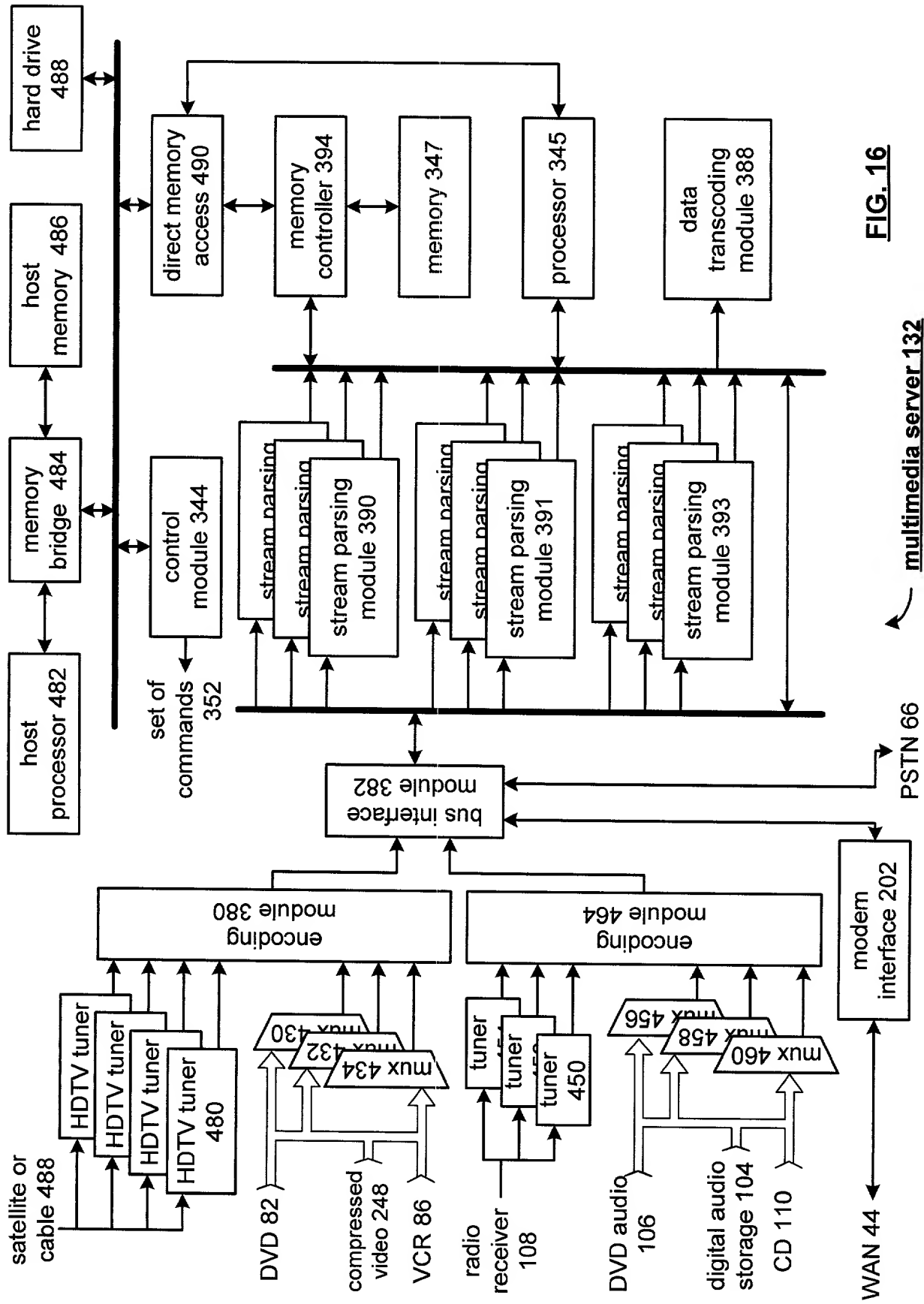


FIG. 16

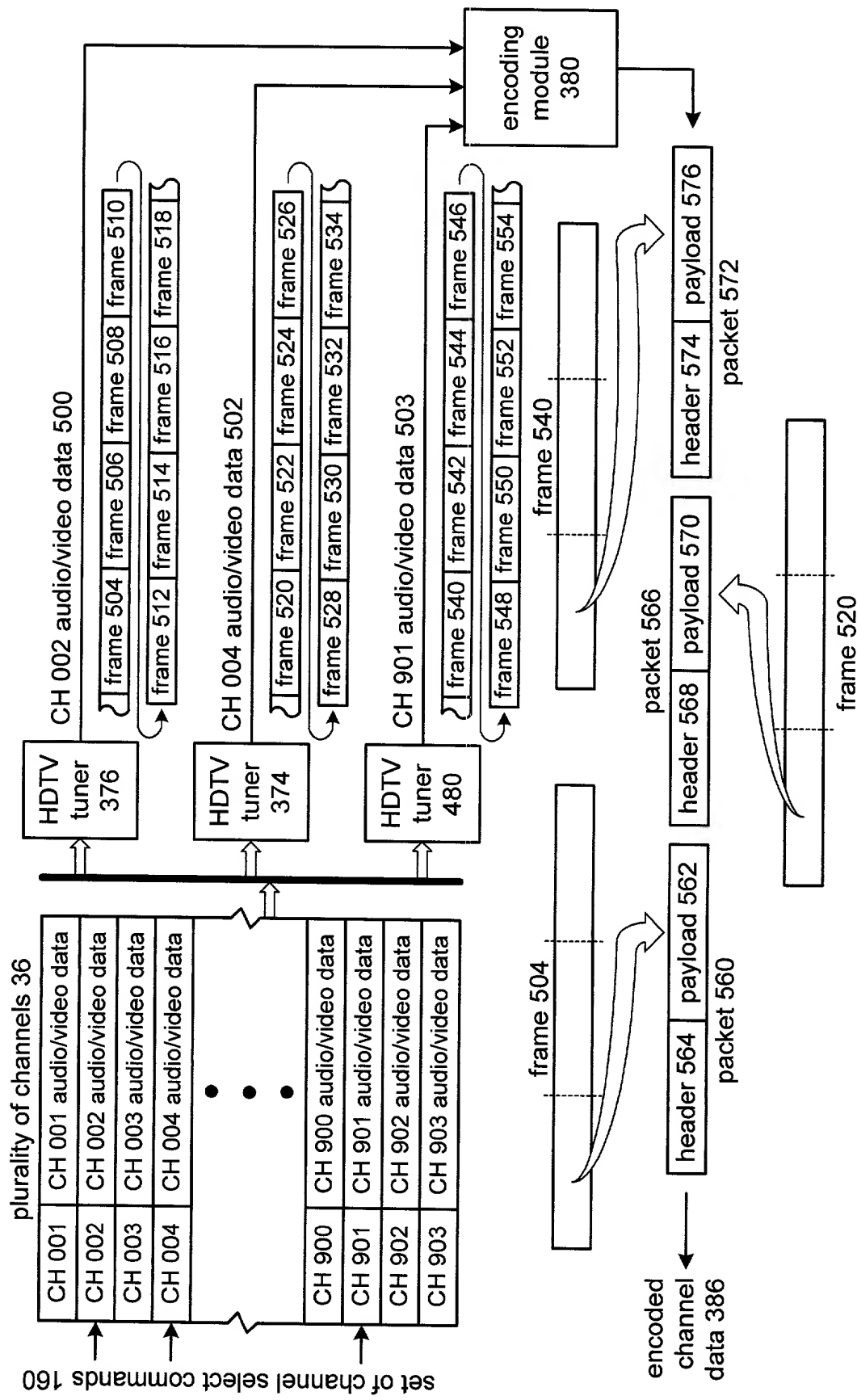


FIG. 17

FIG. 18 is a block diagram of a system for processing a set of channels 162 as encoded channel data 386. The system includes a data transcoding module 388, memory 392, and three parallel processing paths (A, B, and C). Each path consists of a processor (396-A, 396-B, 396-C), a video frame (504, 520, 540), a specific channel select request (586, 588, 590), and a stream parsing module (390-A, 390-B, 390-C). The stream parsing modules are connected to a bus interface (580, 582, 584) which outputs to a common bus. The bus also receives data from the memory 392. The stream parsing modules output data (592, 594, 596) to the video frames, which then output to the processors. The processors output generic data (598, 600, 602) to the memory 392. The memory 392 outputs to the data transcoding module 388, which outputs a stream of channel data 166.

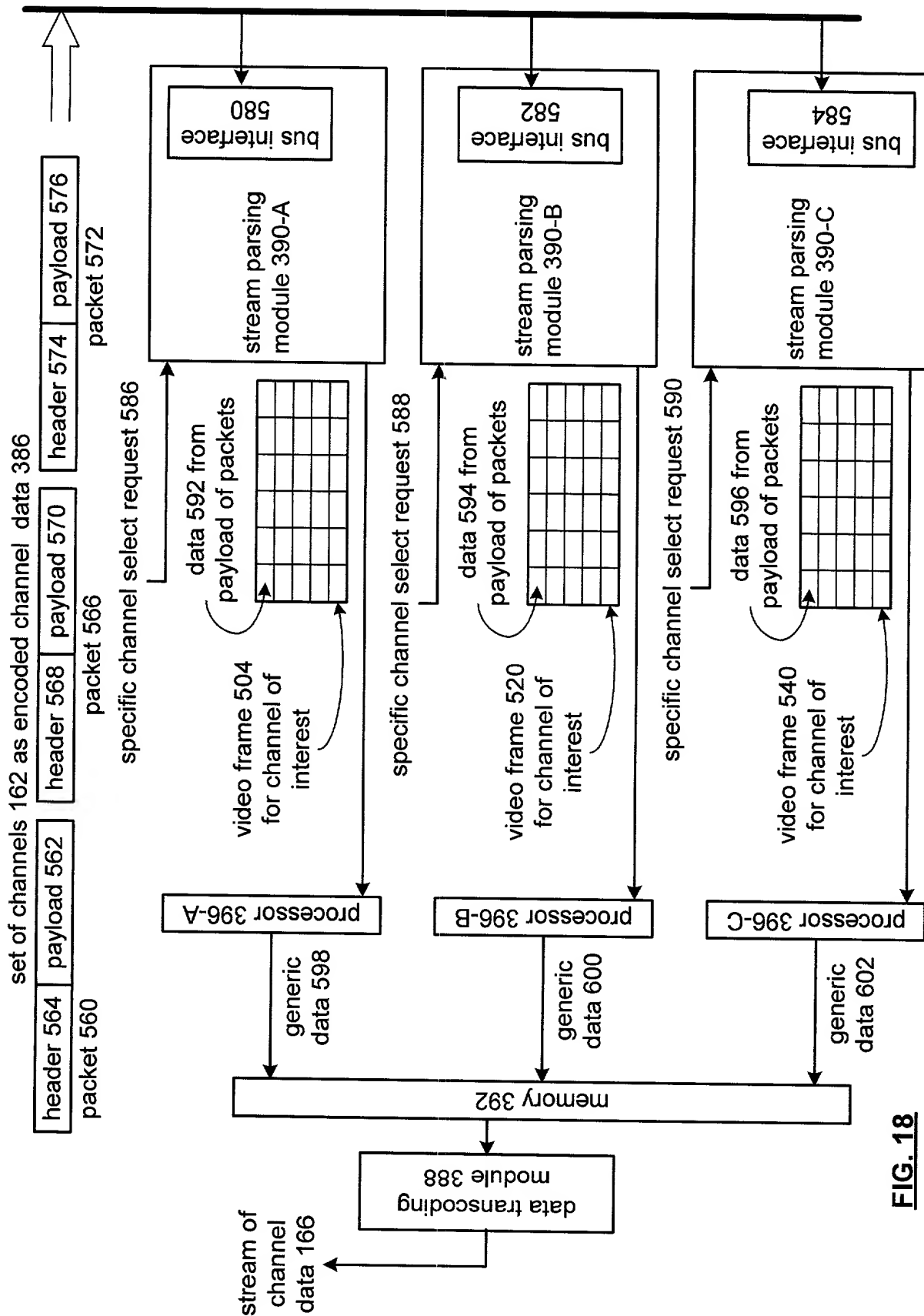


FIG. 18

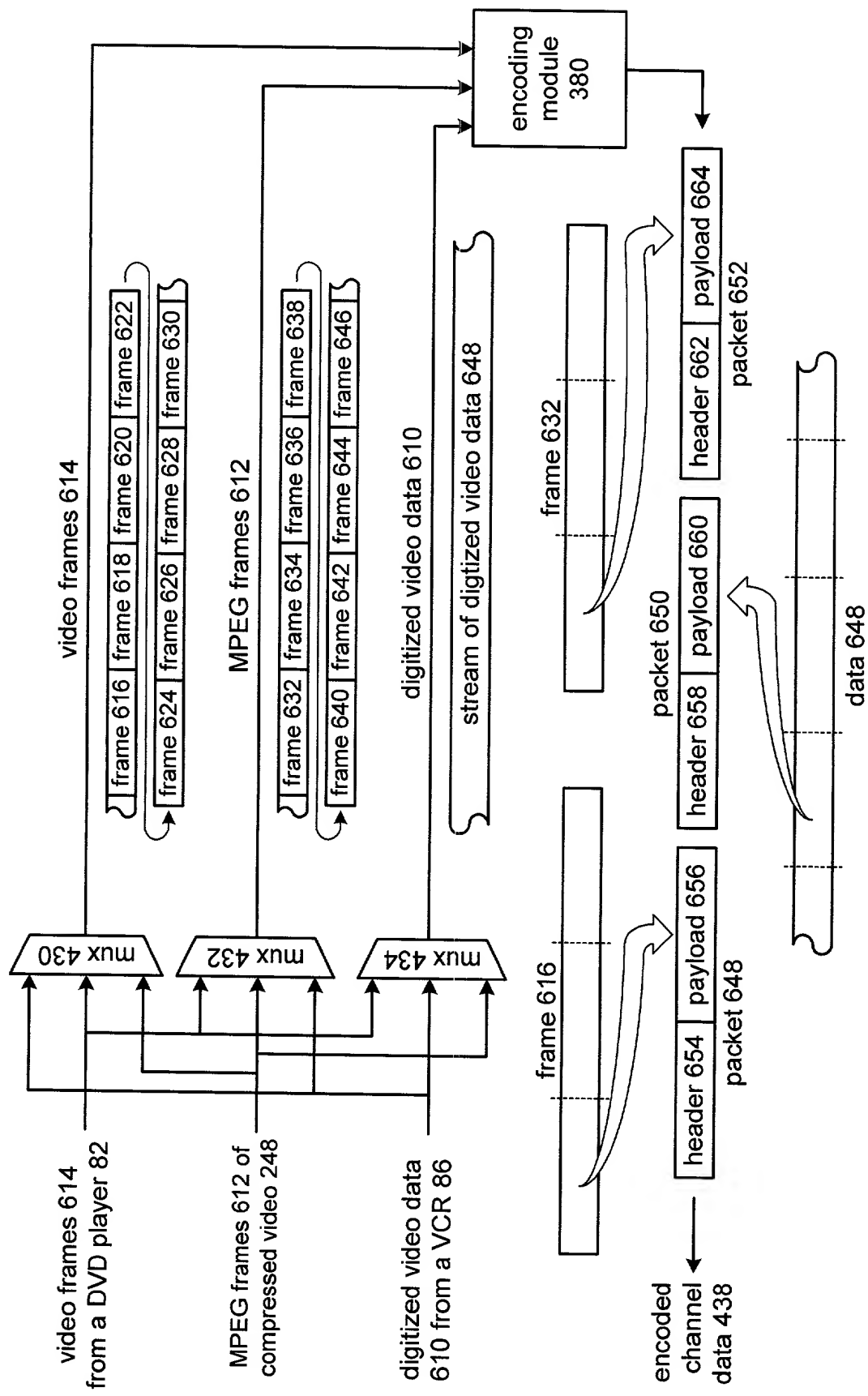


FIG. 19

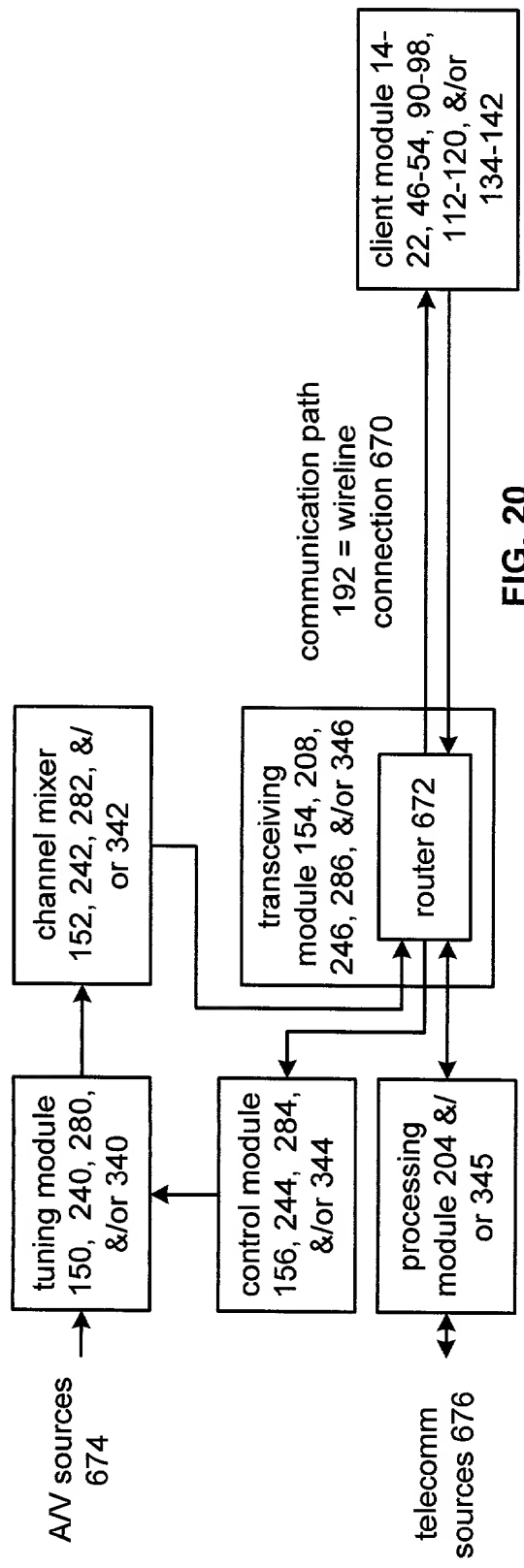


FIG. 20

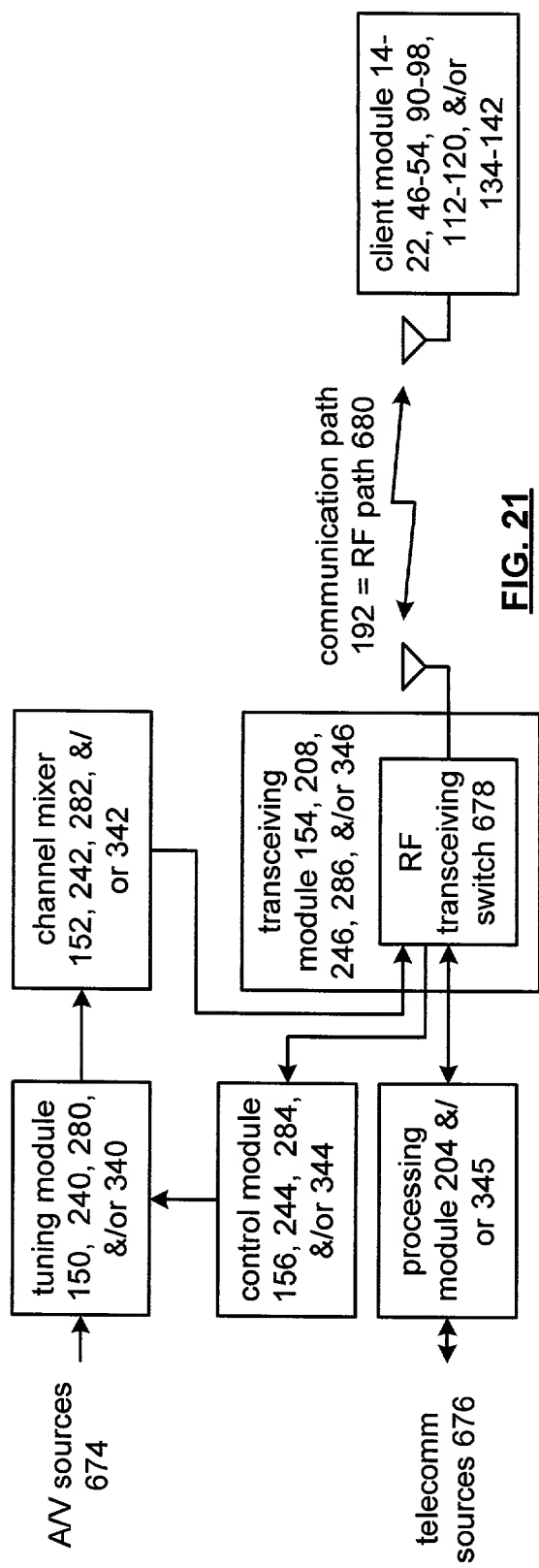


FIG. 21

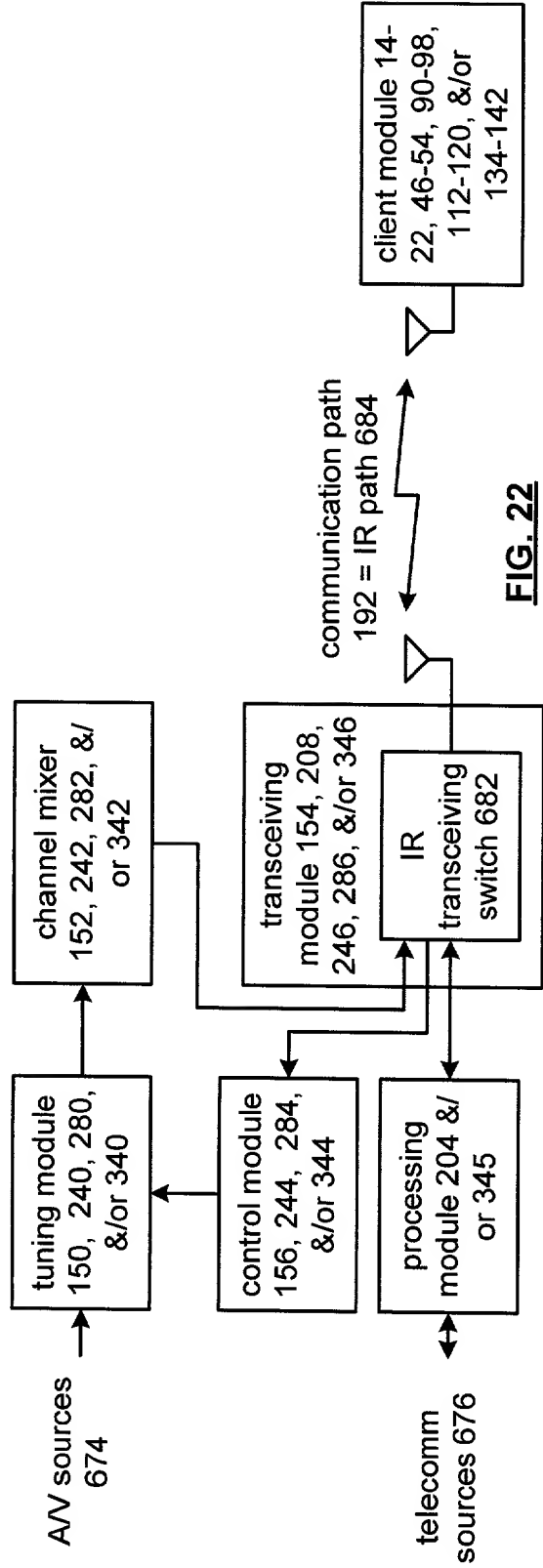


FIG. 22

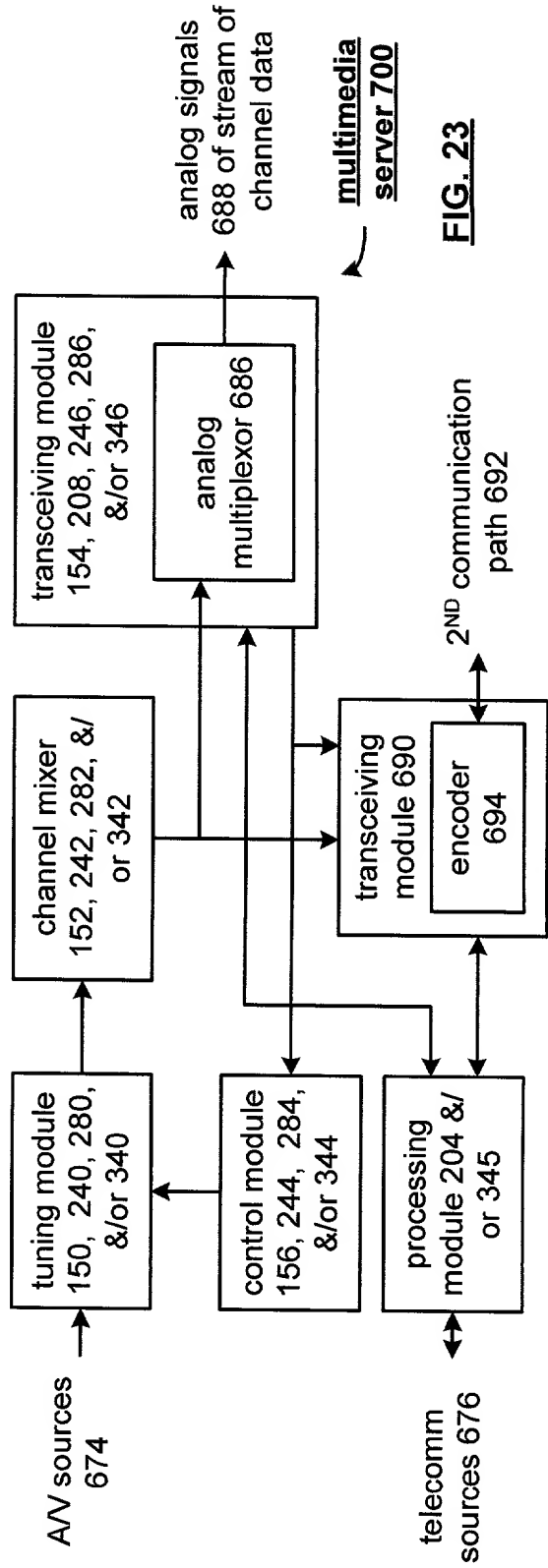


FIG. 23

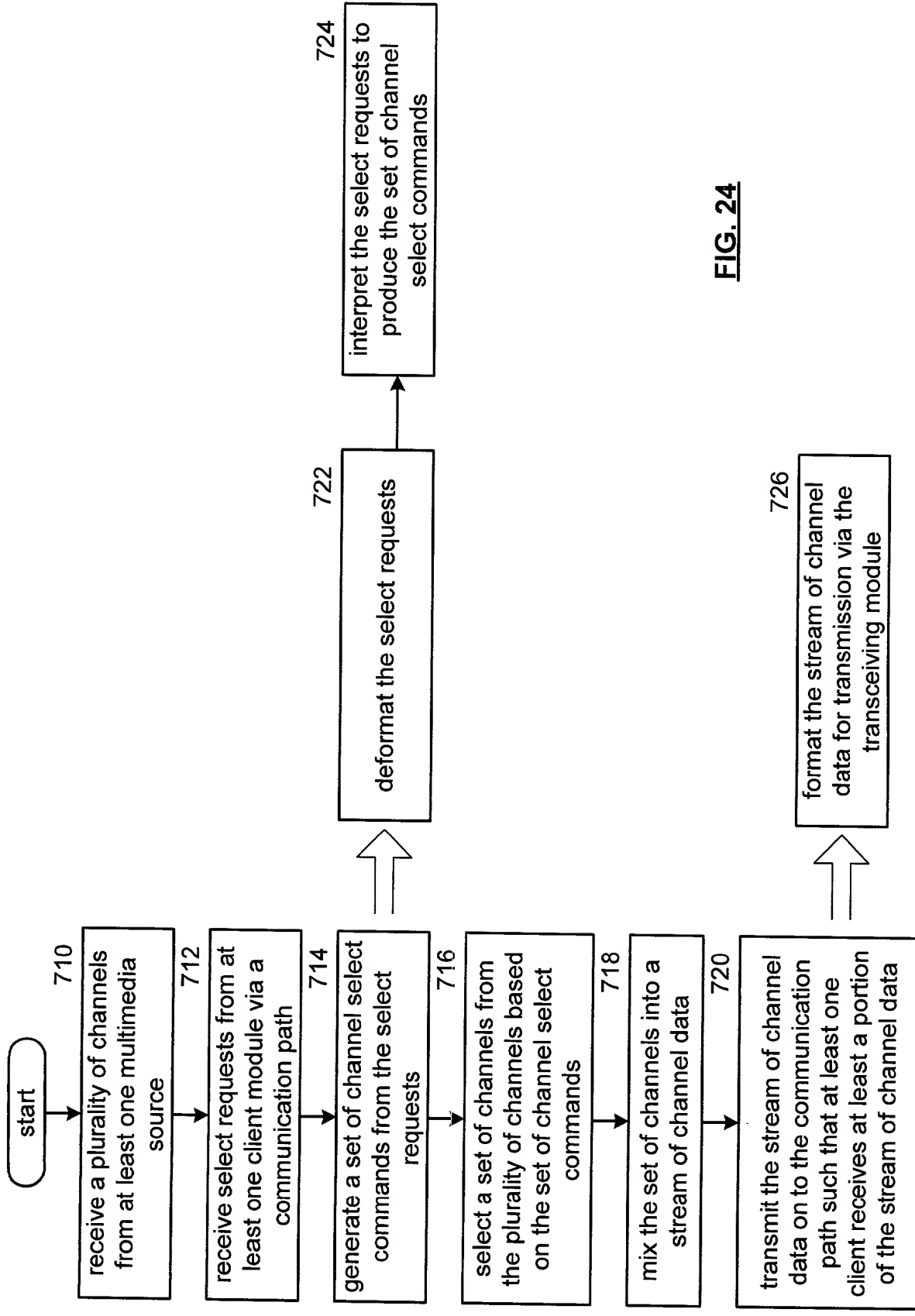


FIG. 24

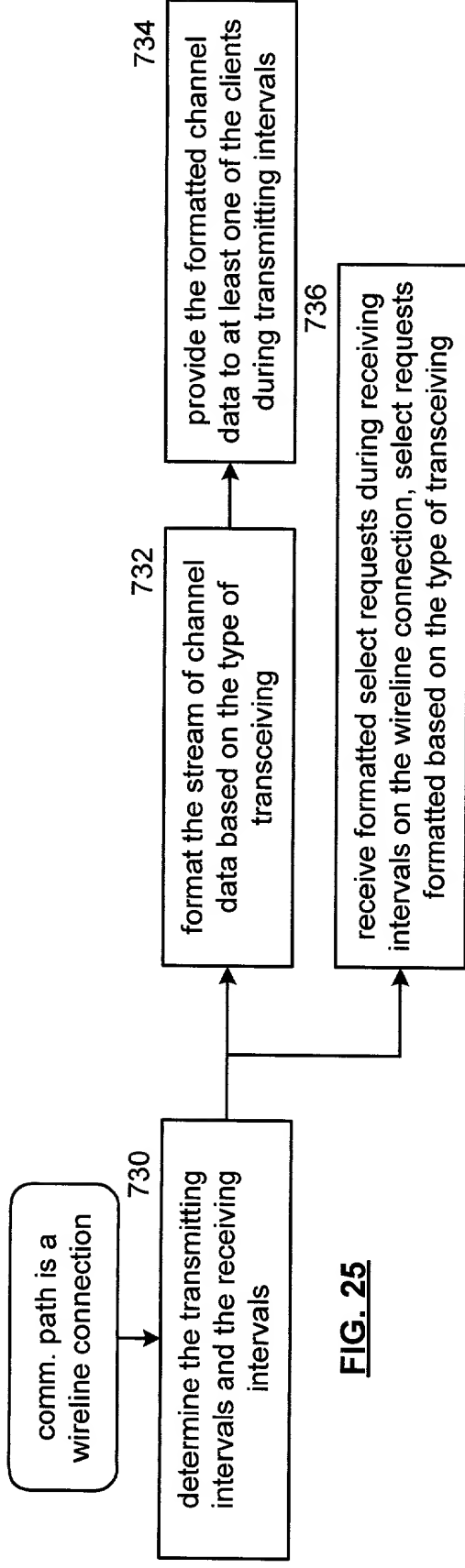


FIG. 25

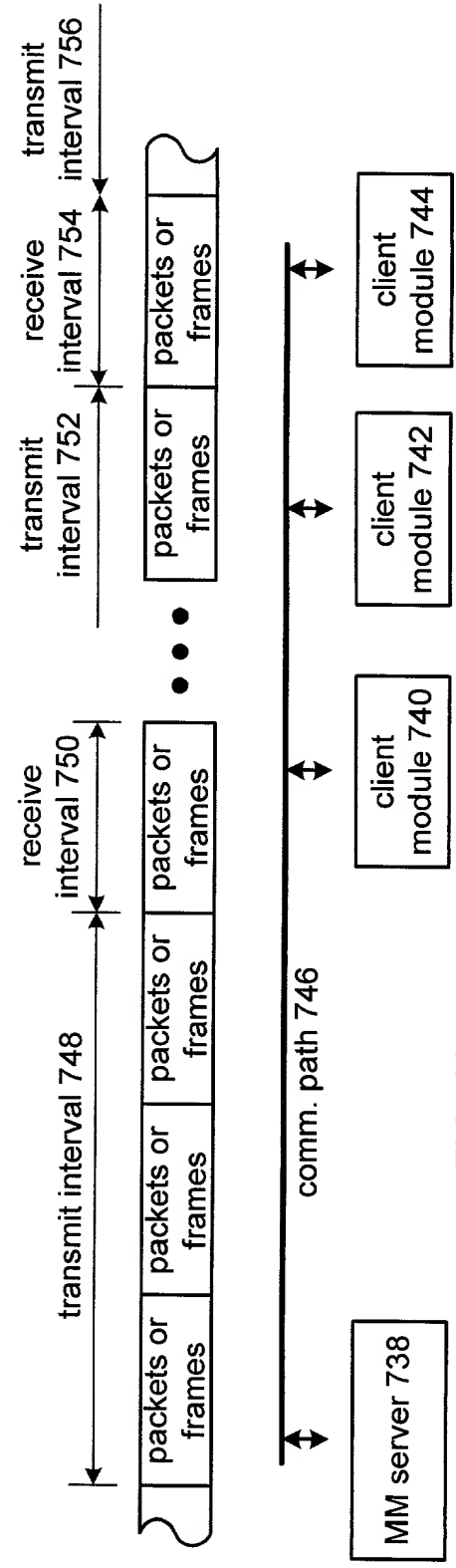


FIG. 26

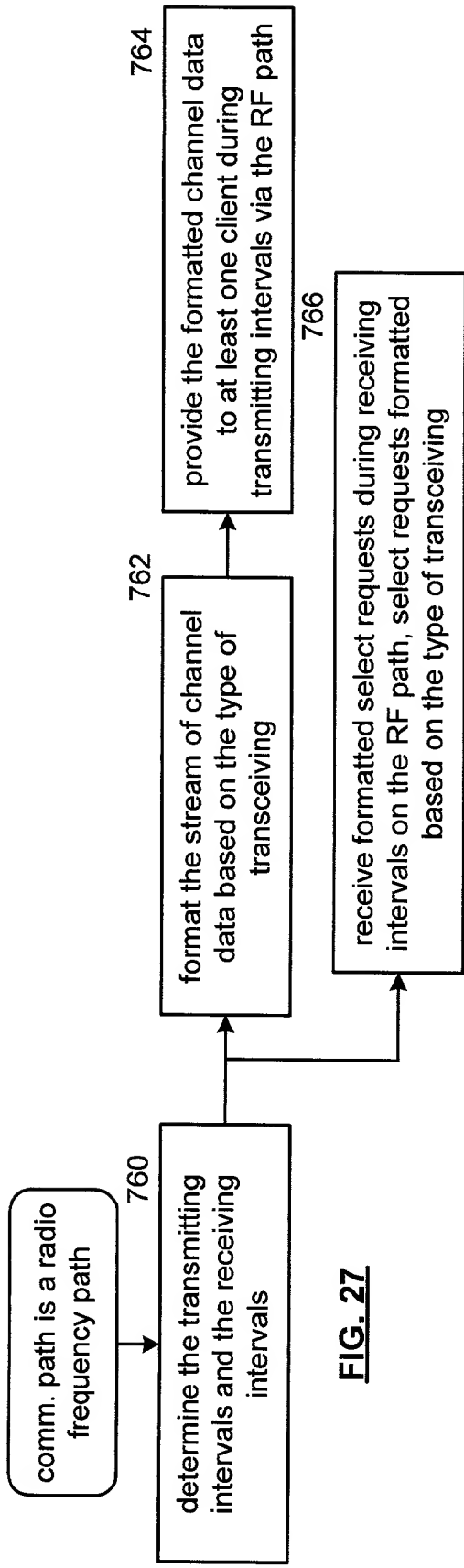


FIG. 27

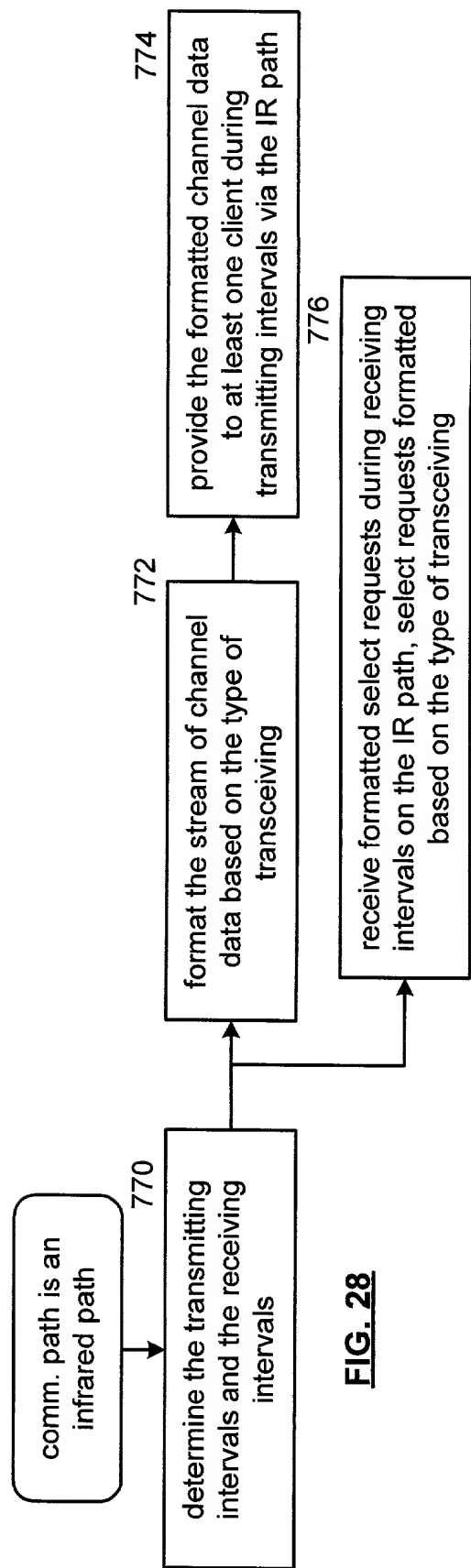


FIG. 28

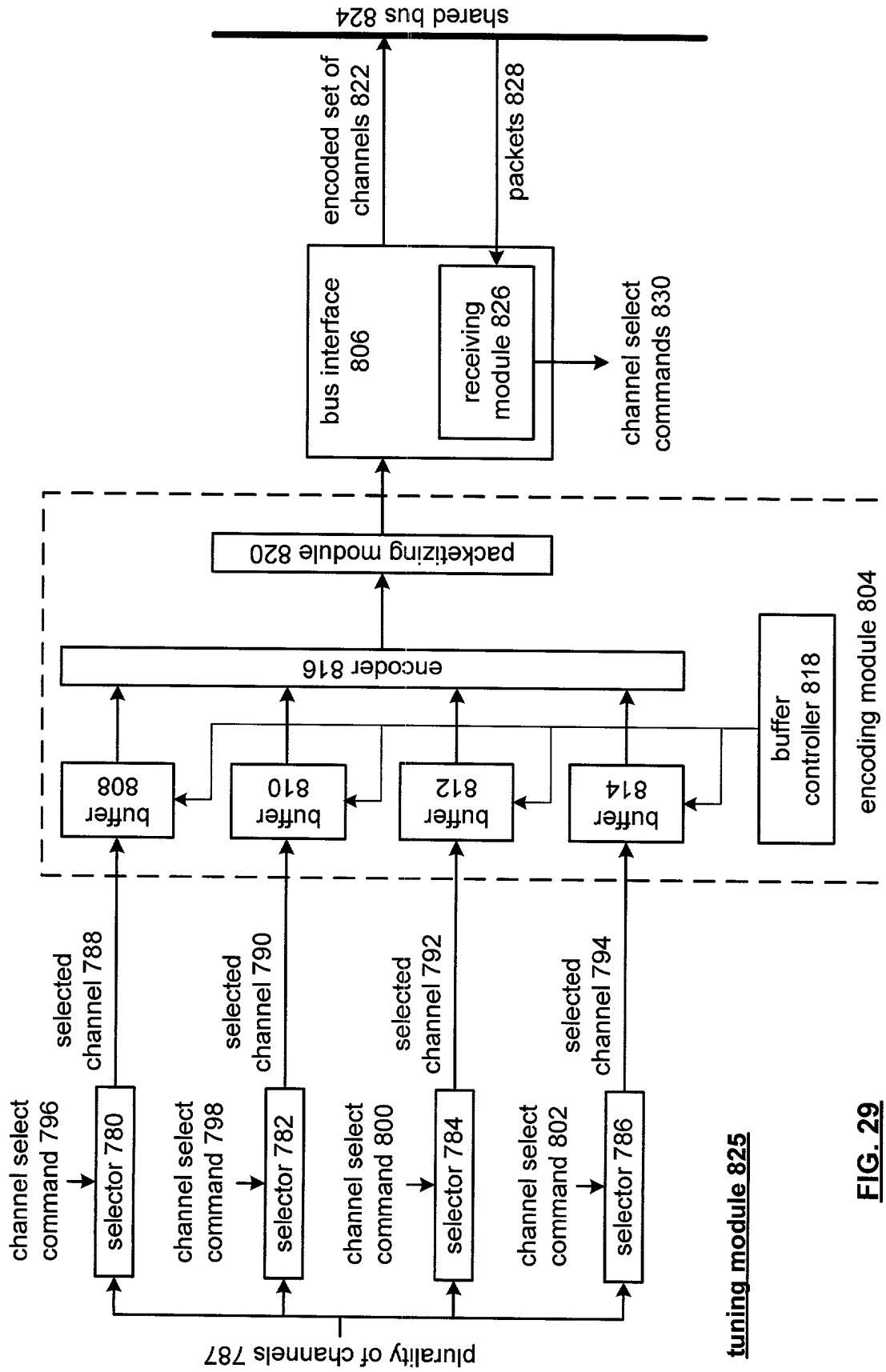
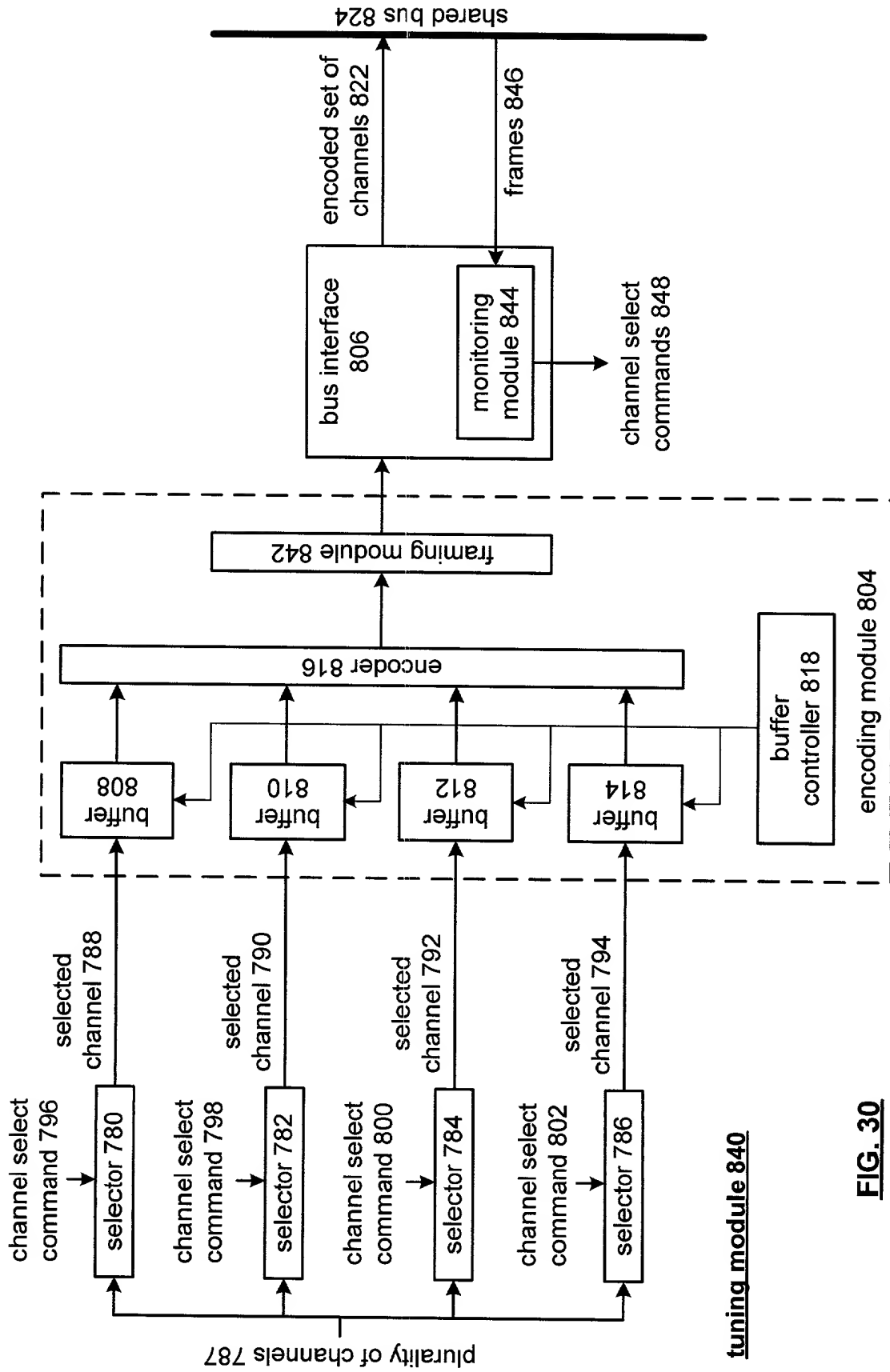
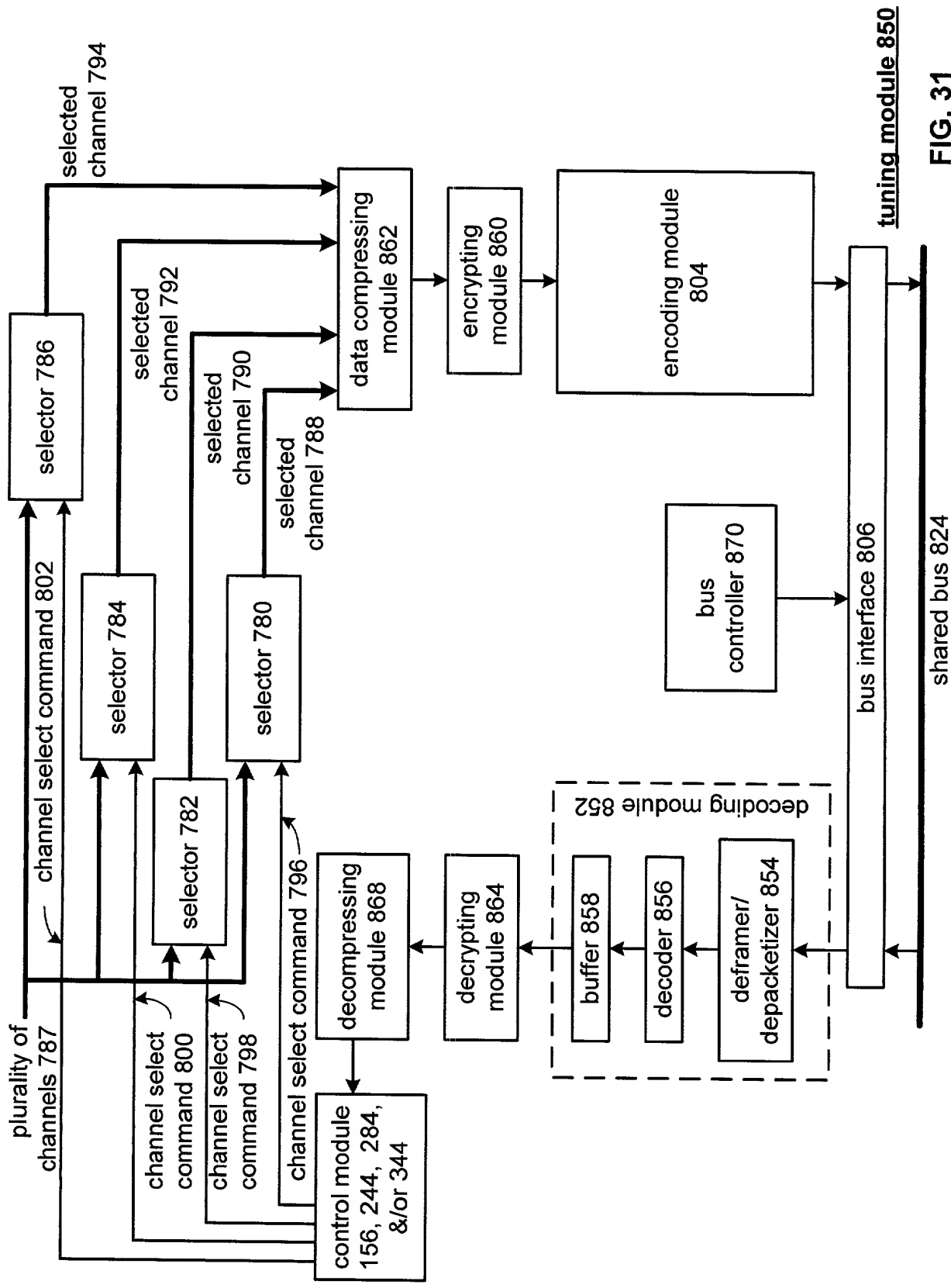


FIG. 29





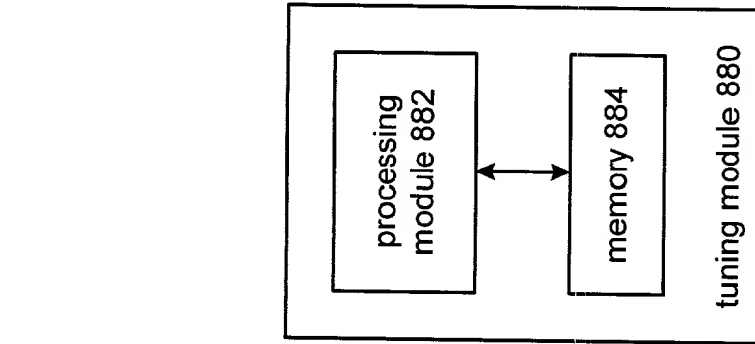


FIG. 32

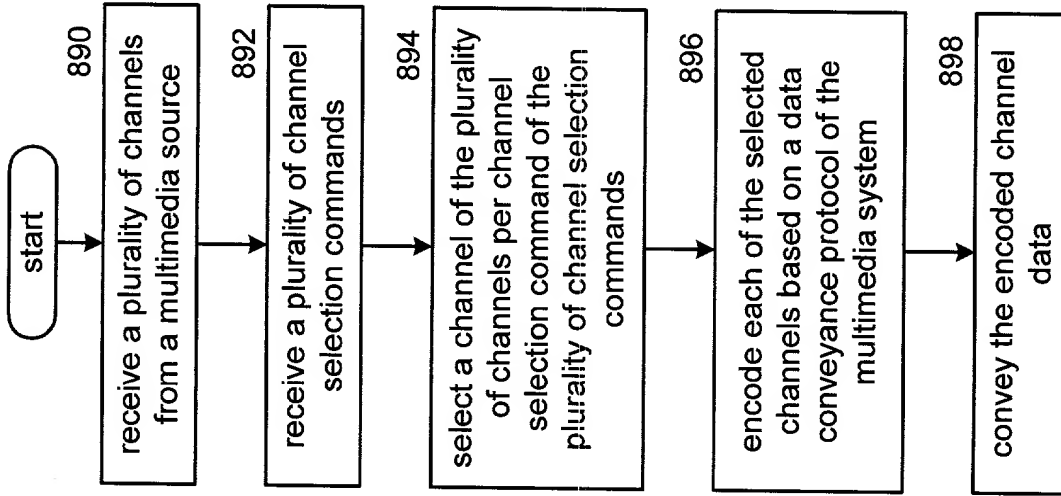


FIG. 33

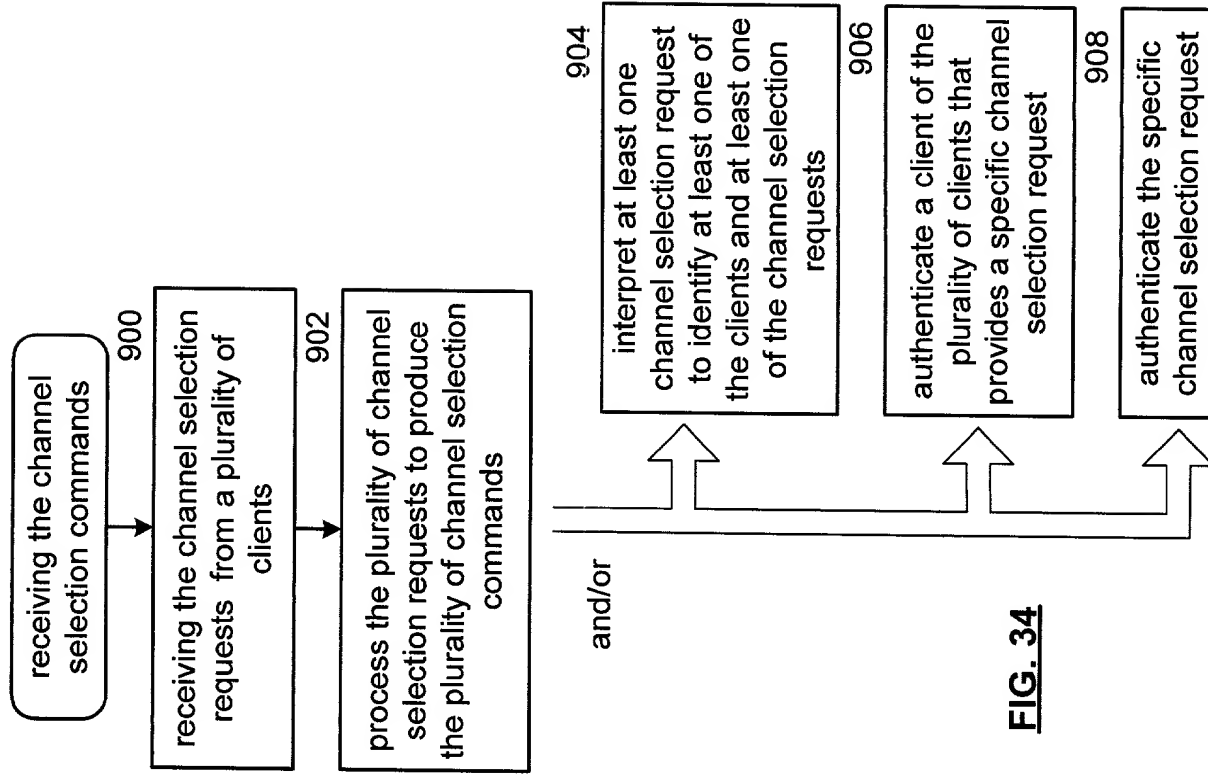


FIG. 34

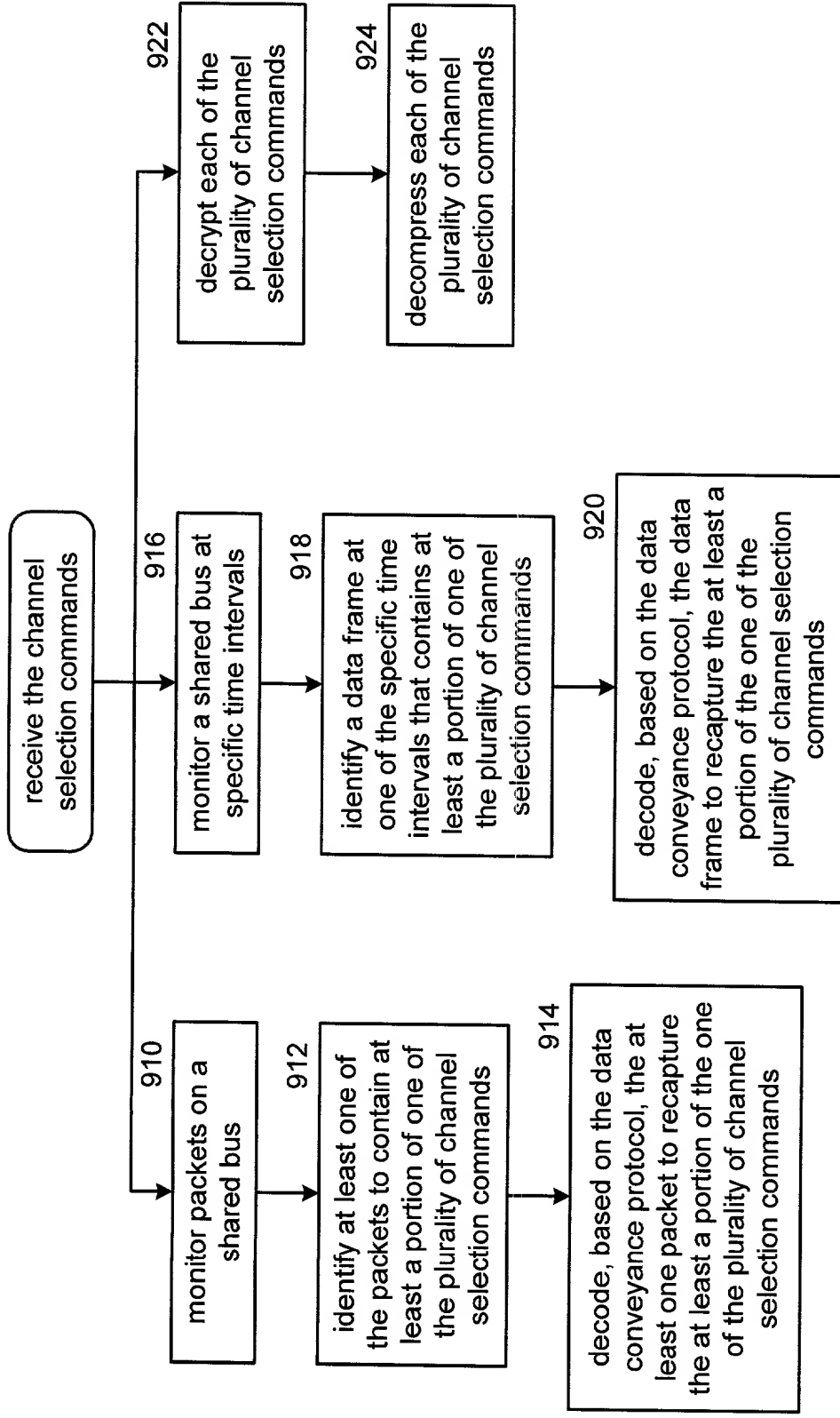


FIG. 35

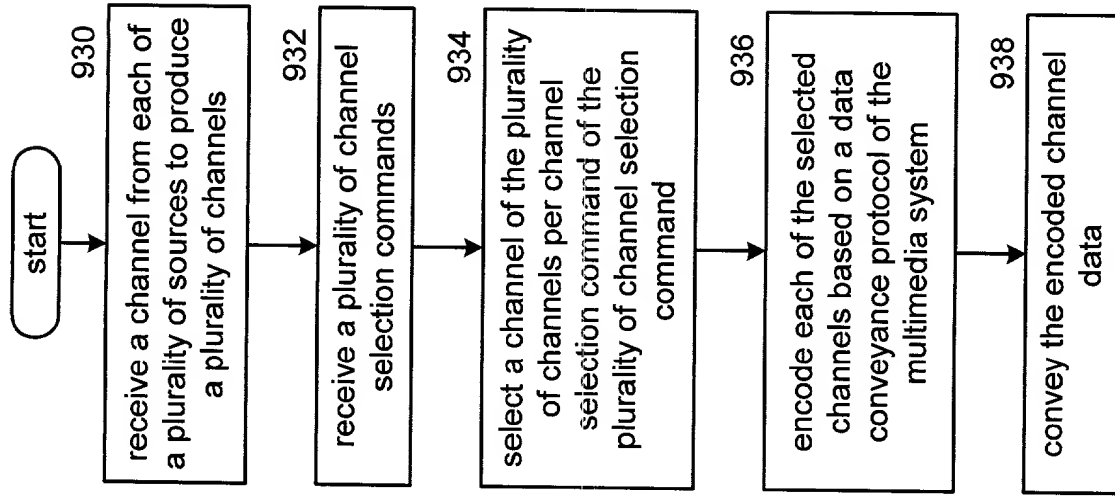


FIG. 36

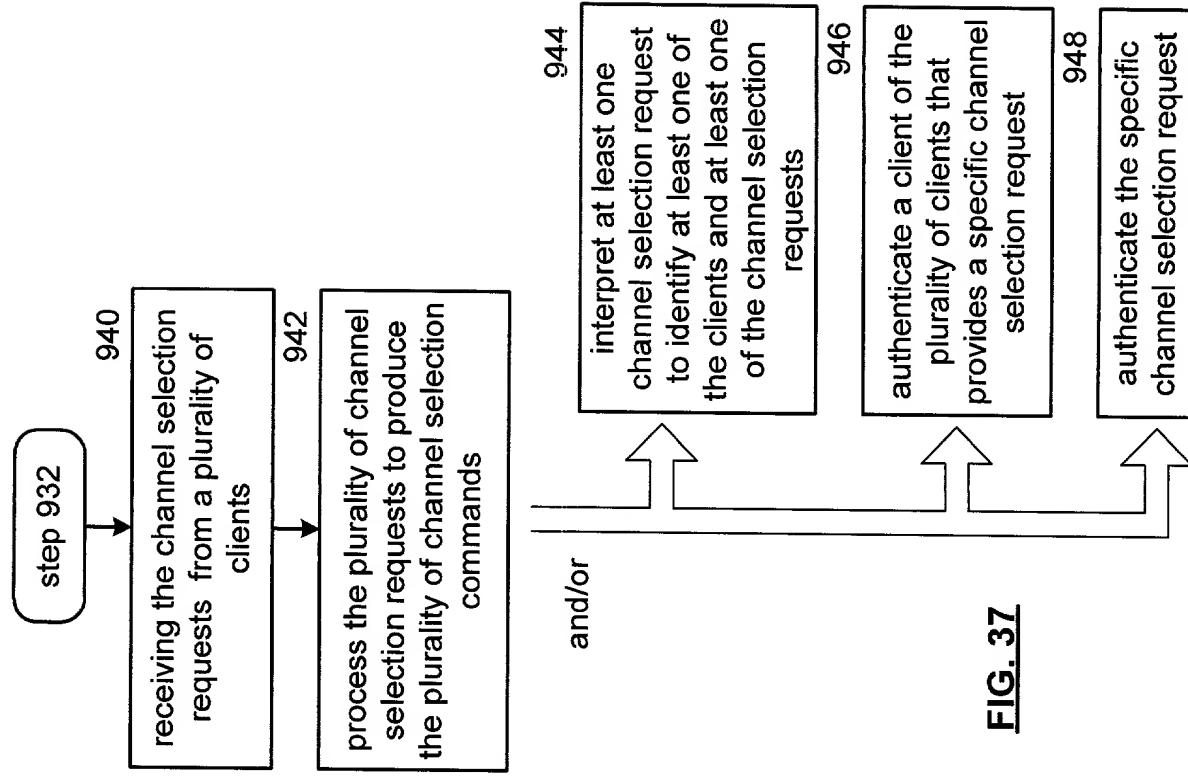
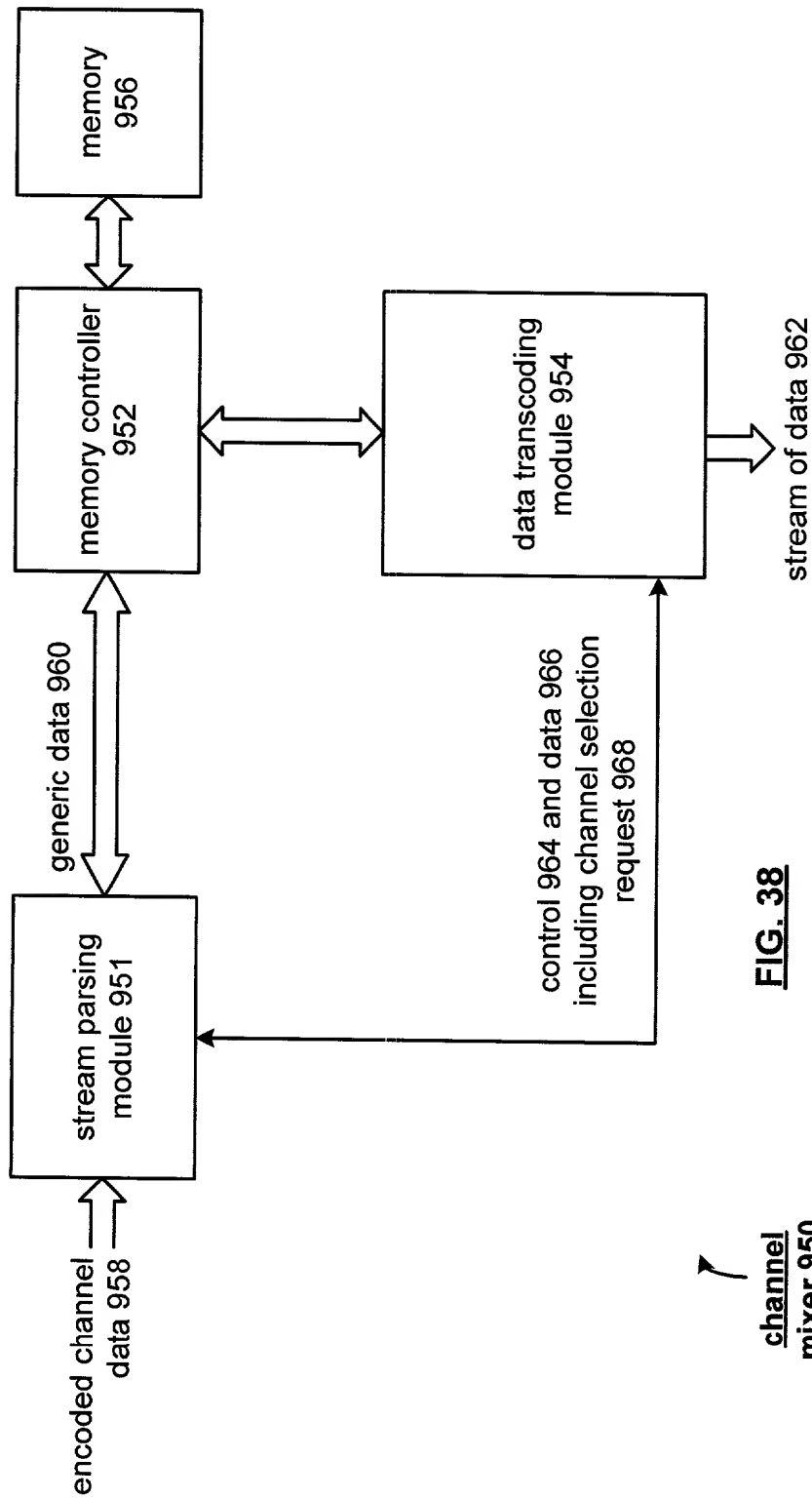


FIG. 37



channel mixer 950

FIG. 38

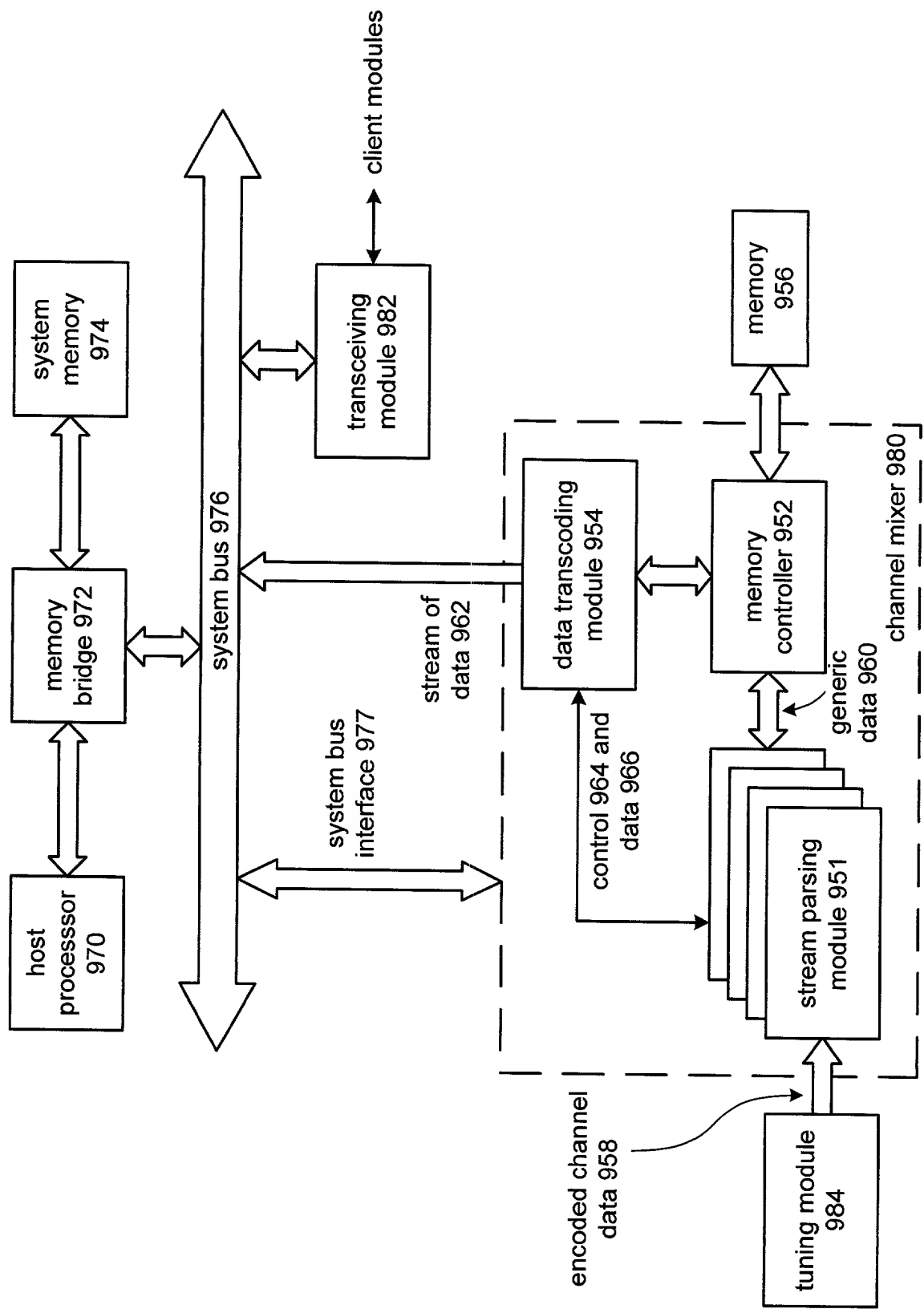
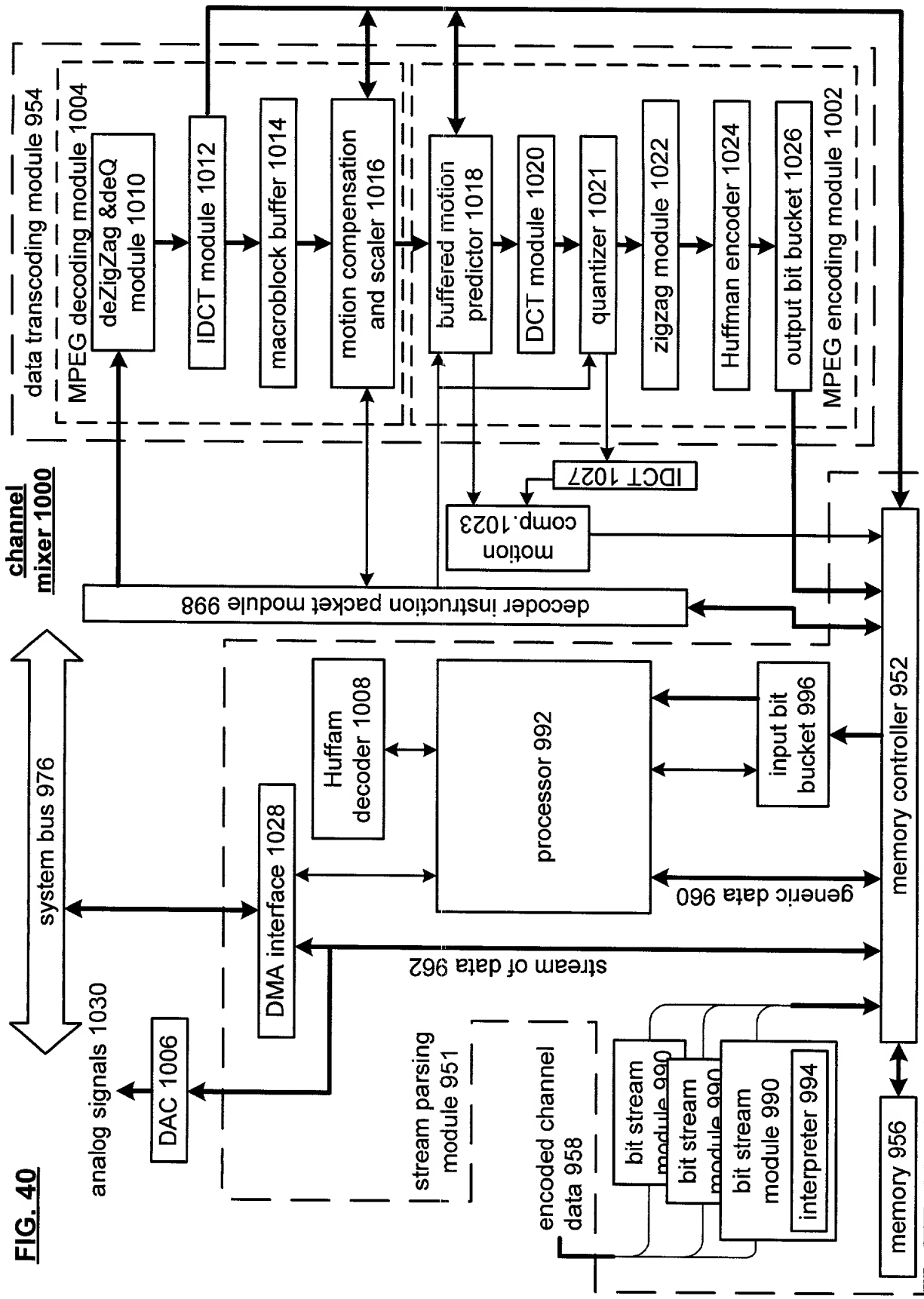


FIG. 39



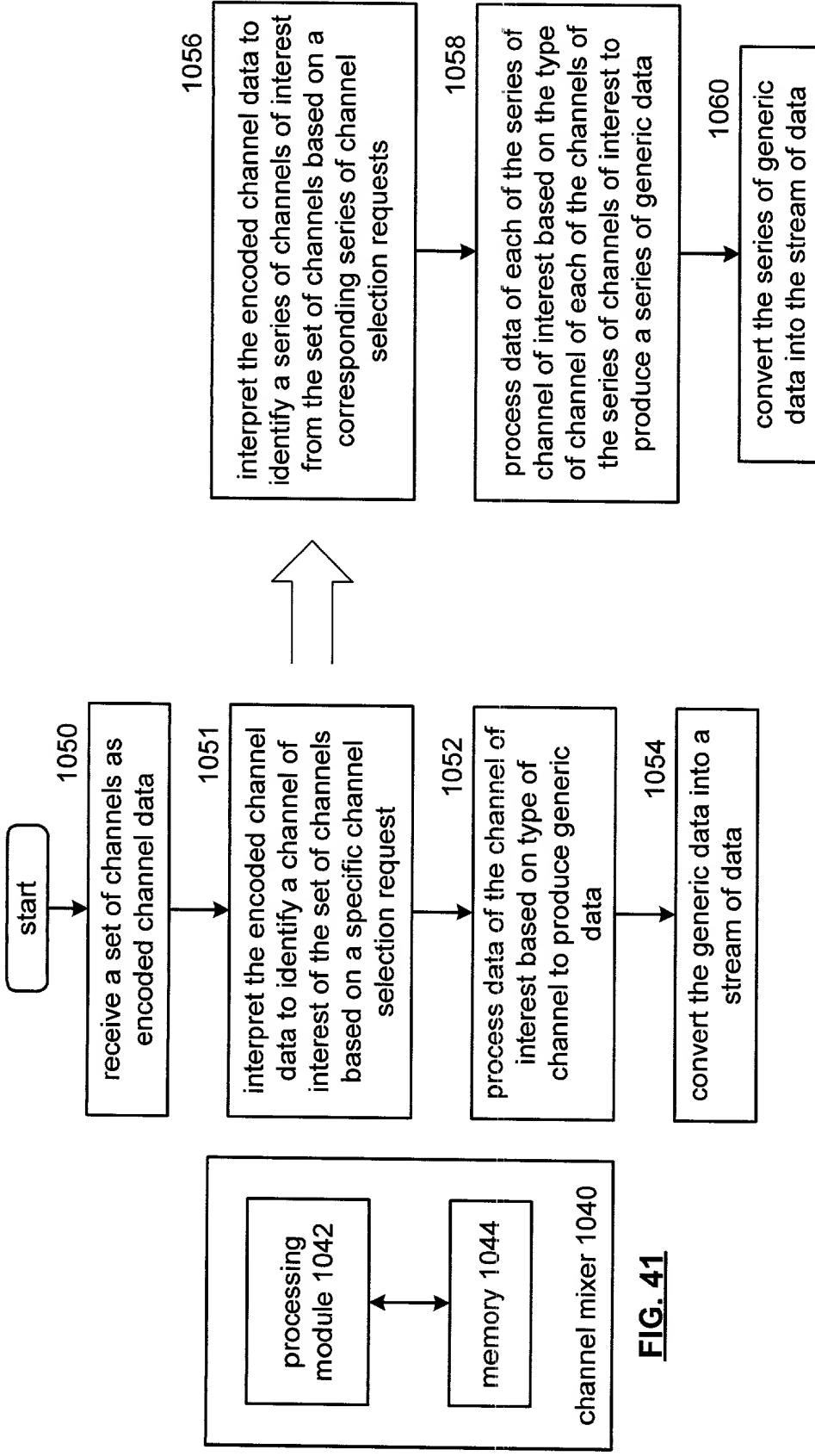


FIG. 42

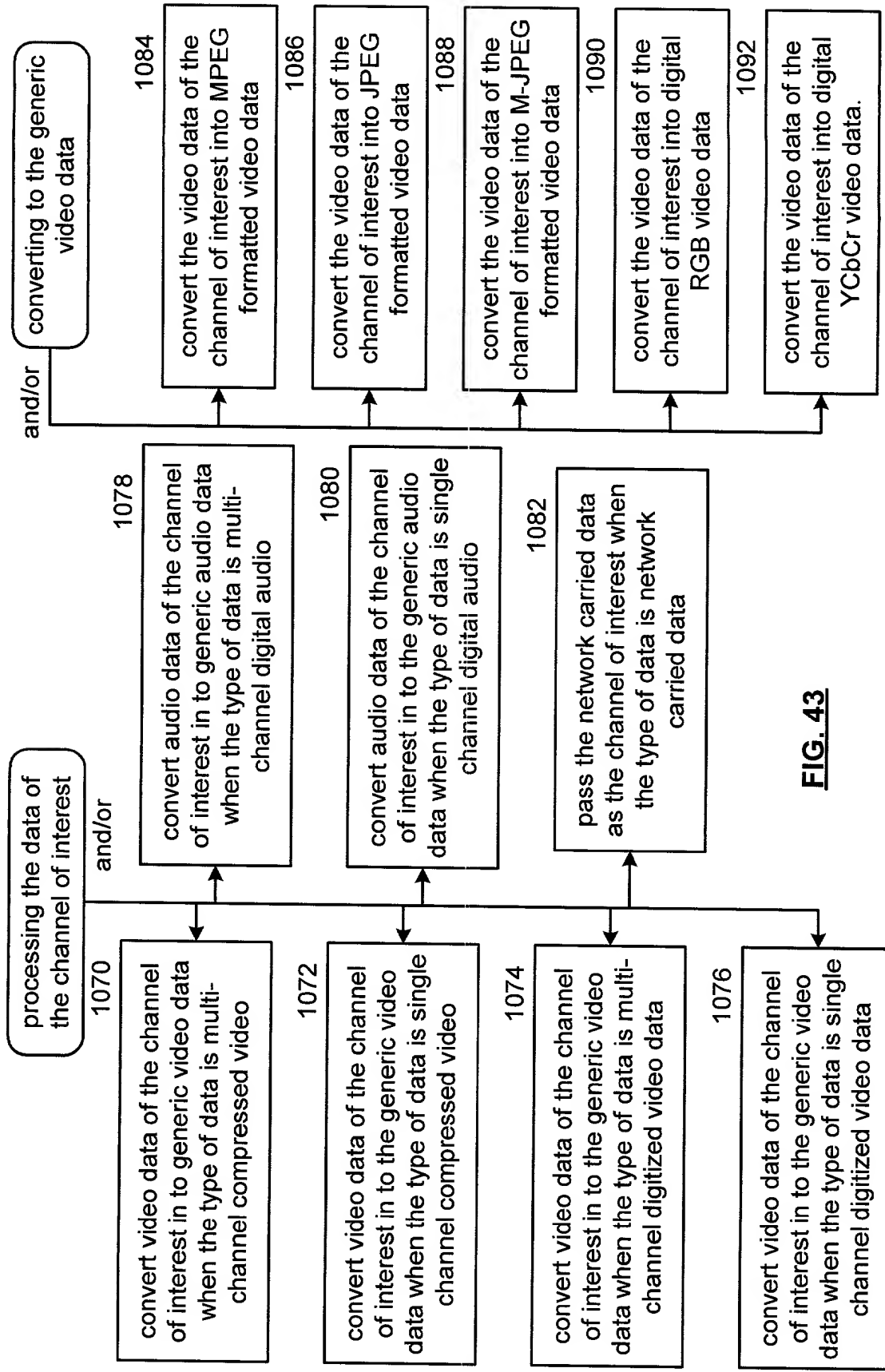


FIG. 44

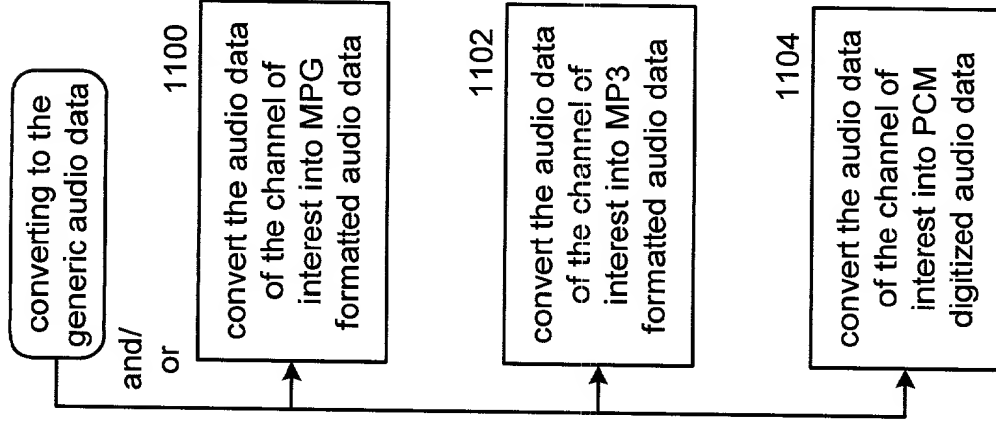


FIG. 45

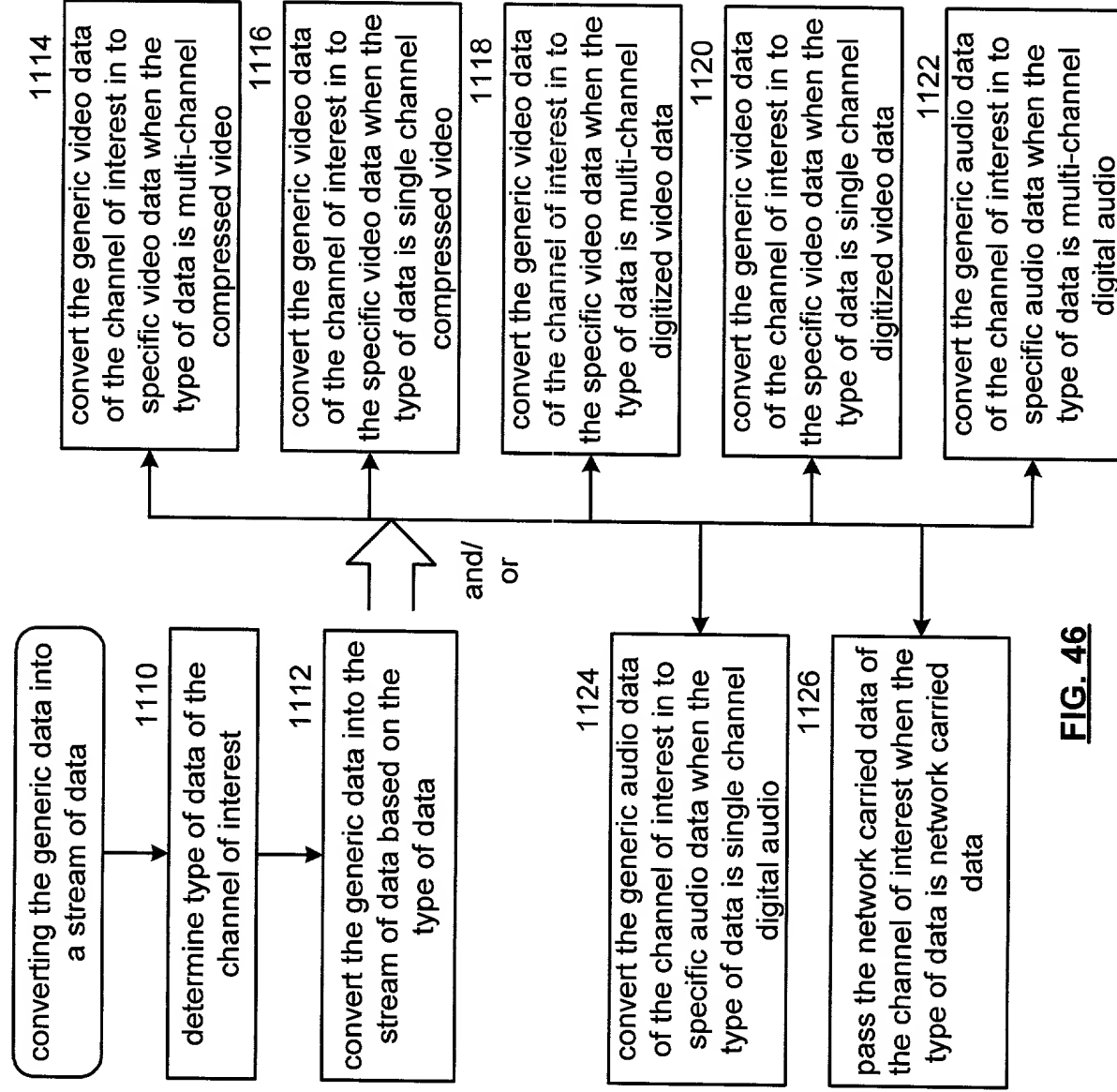


FIG. 46

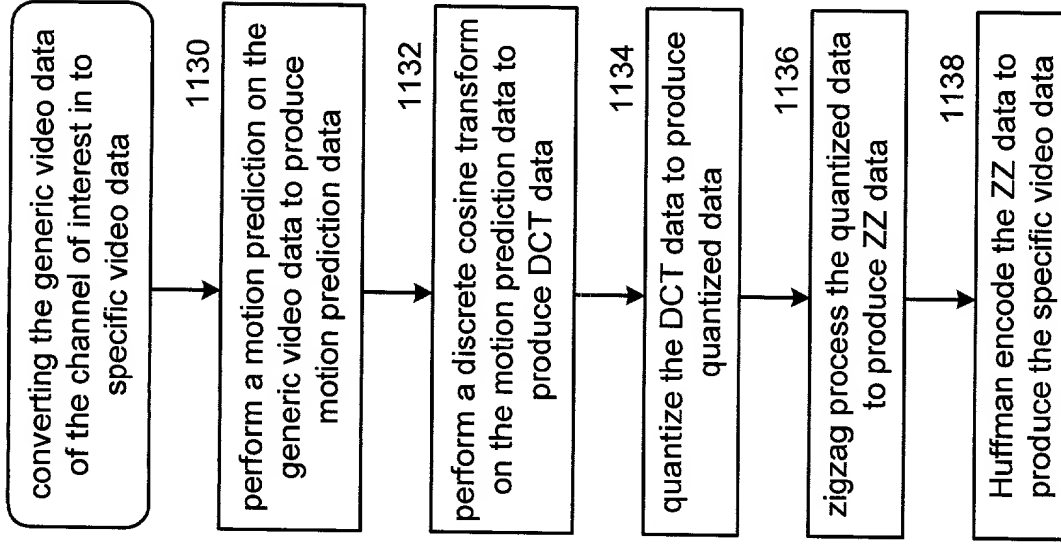


FIG. 47

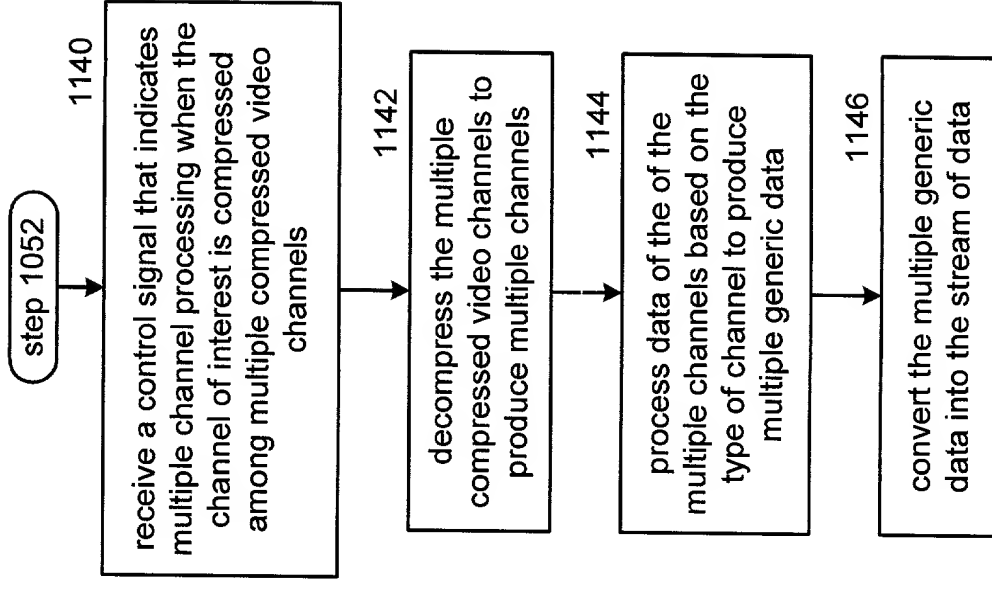


FIG. 48

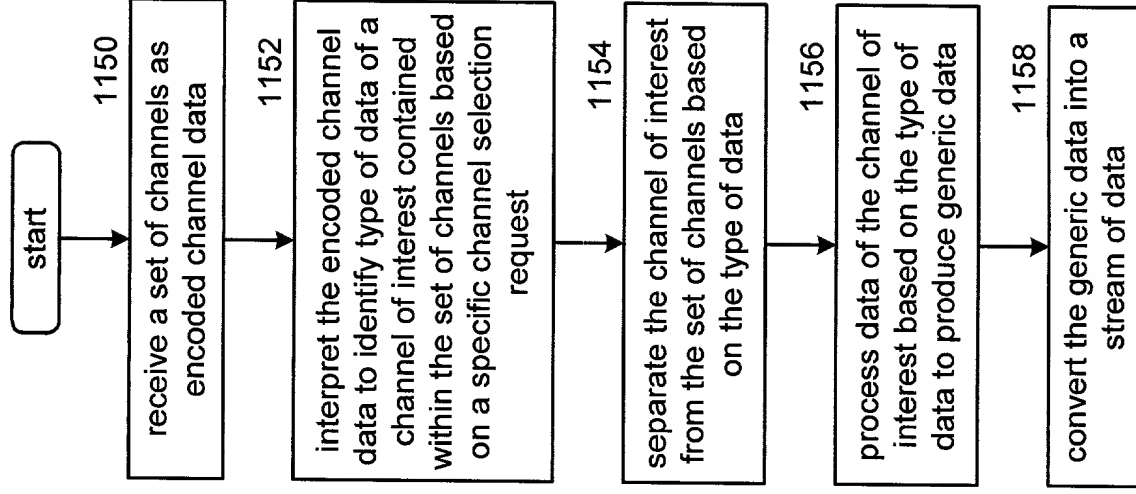


FIG. 49

FIG. 50 is a block diagram of a client system 1170 in accordance with an embodiment of the present invention.

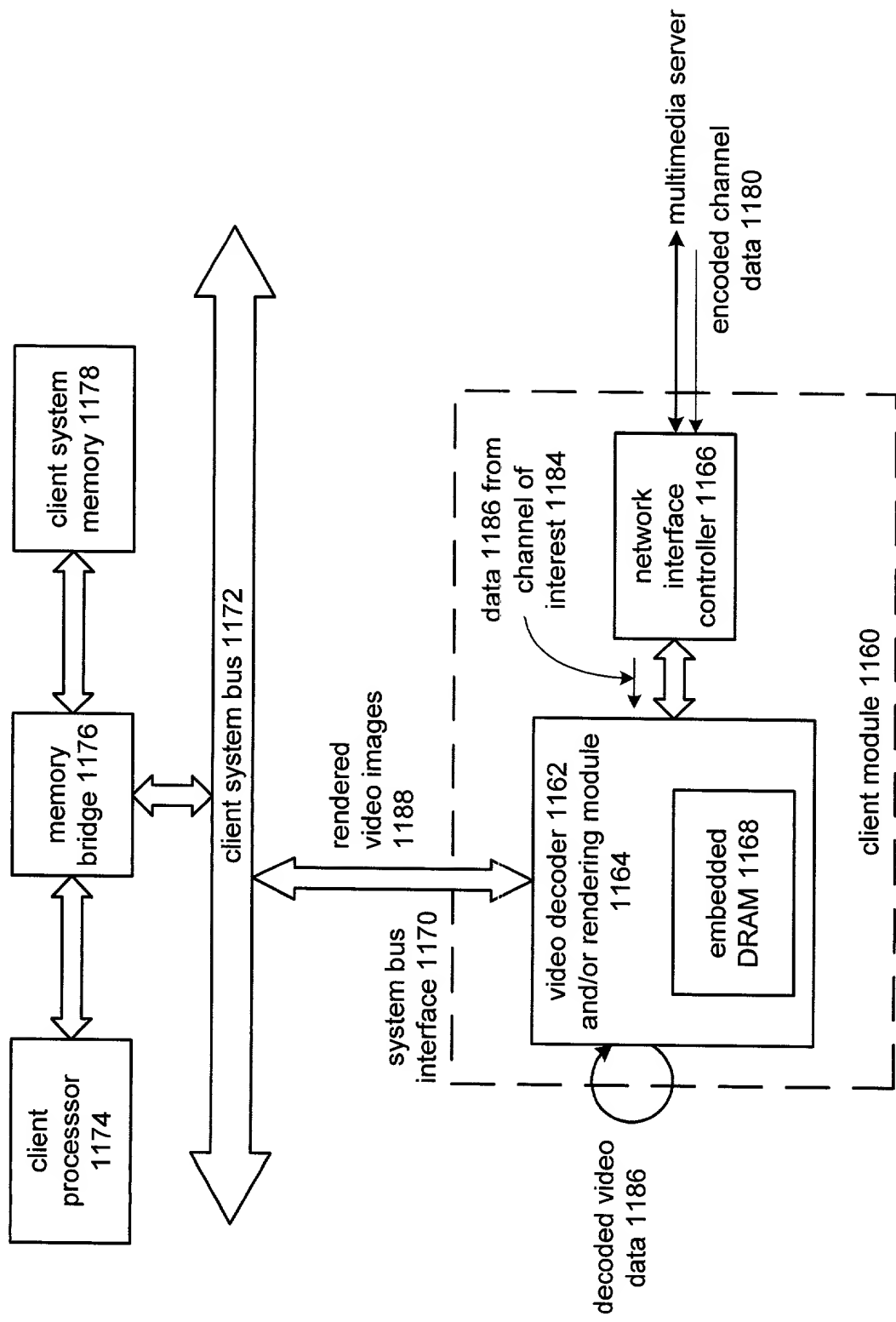


FIG. 50

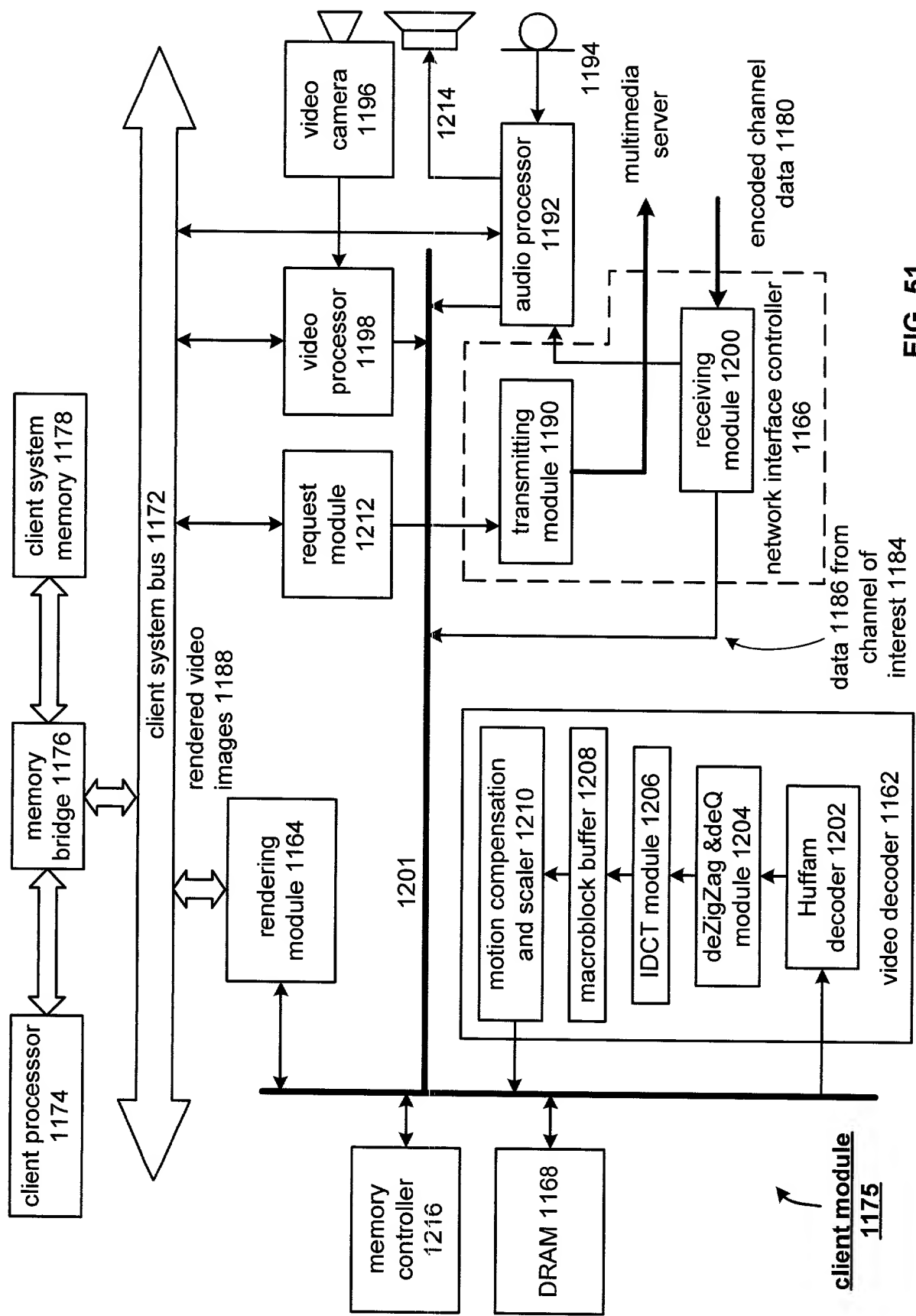


FIG. 51

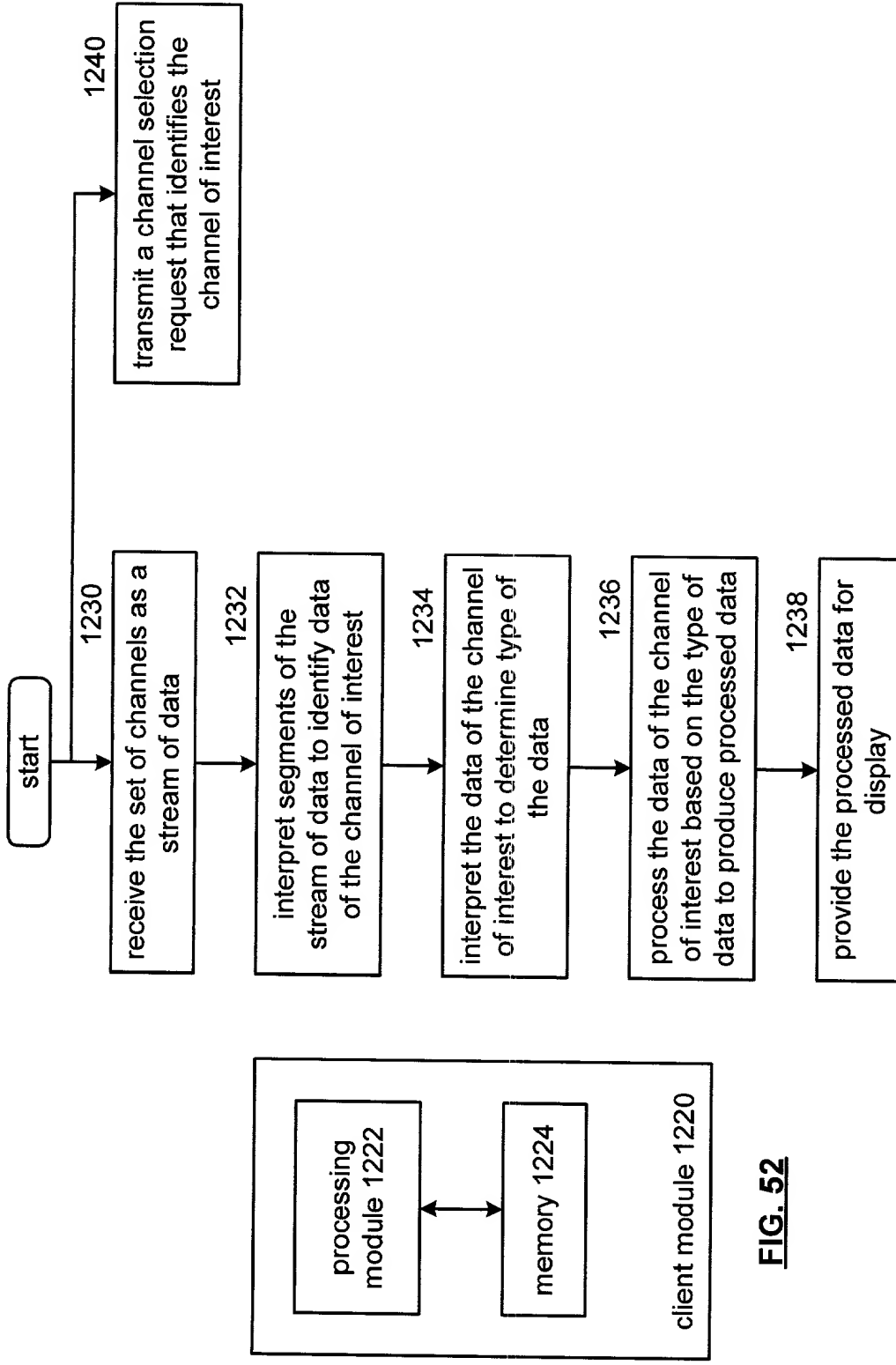


FIG. 52

FIG. 53

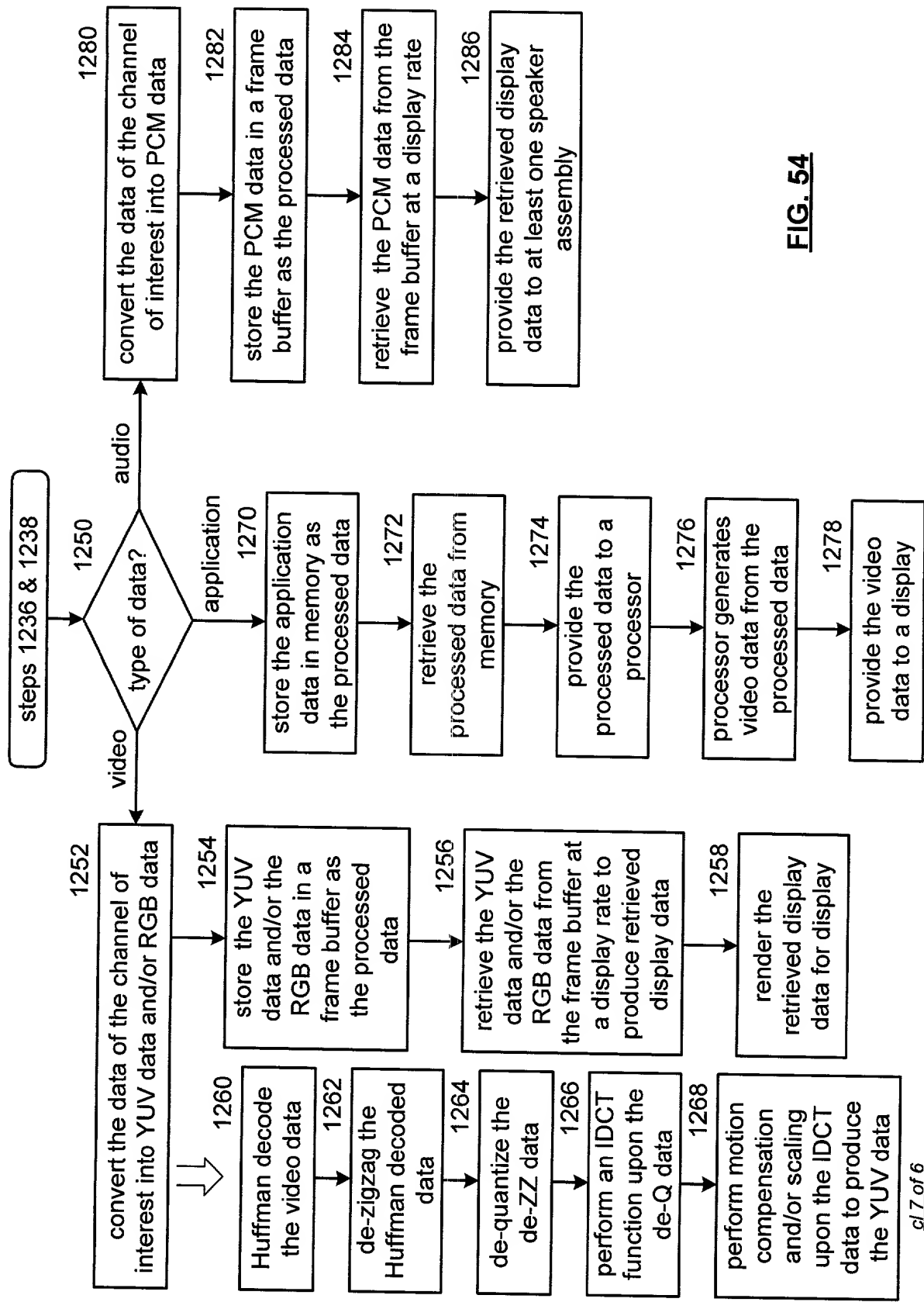


FIG. 54

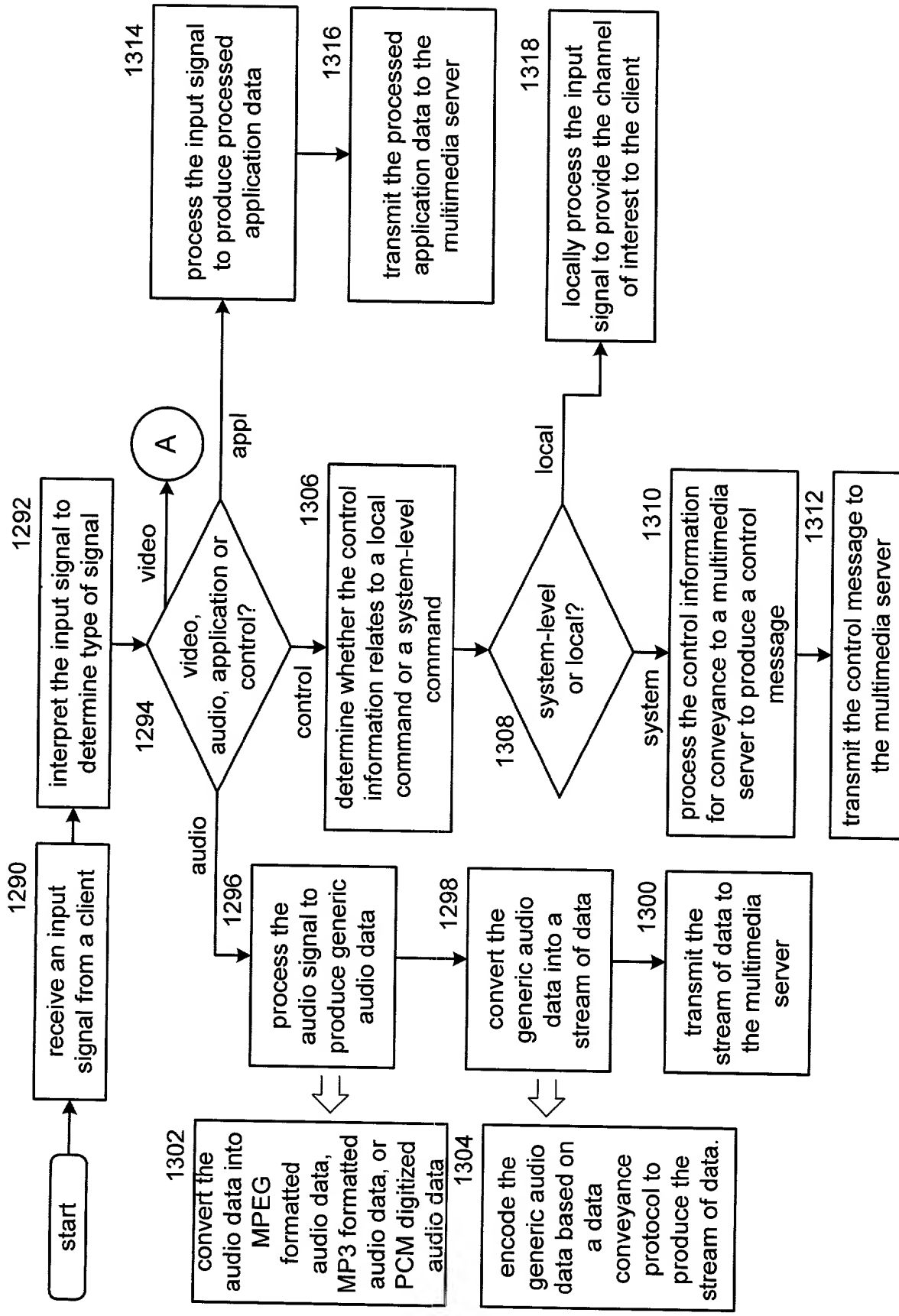


FIG. 55

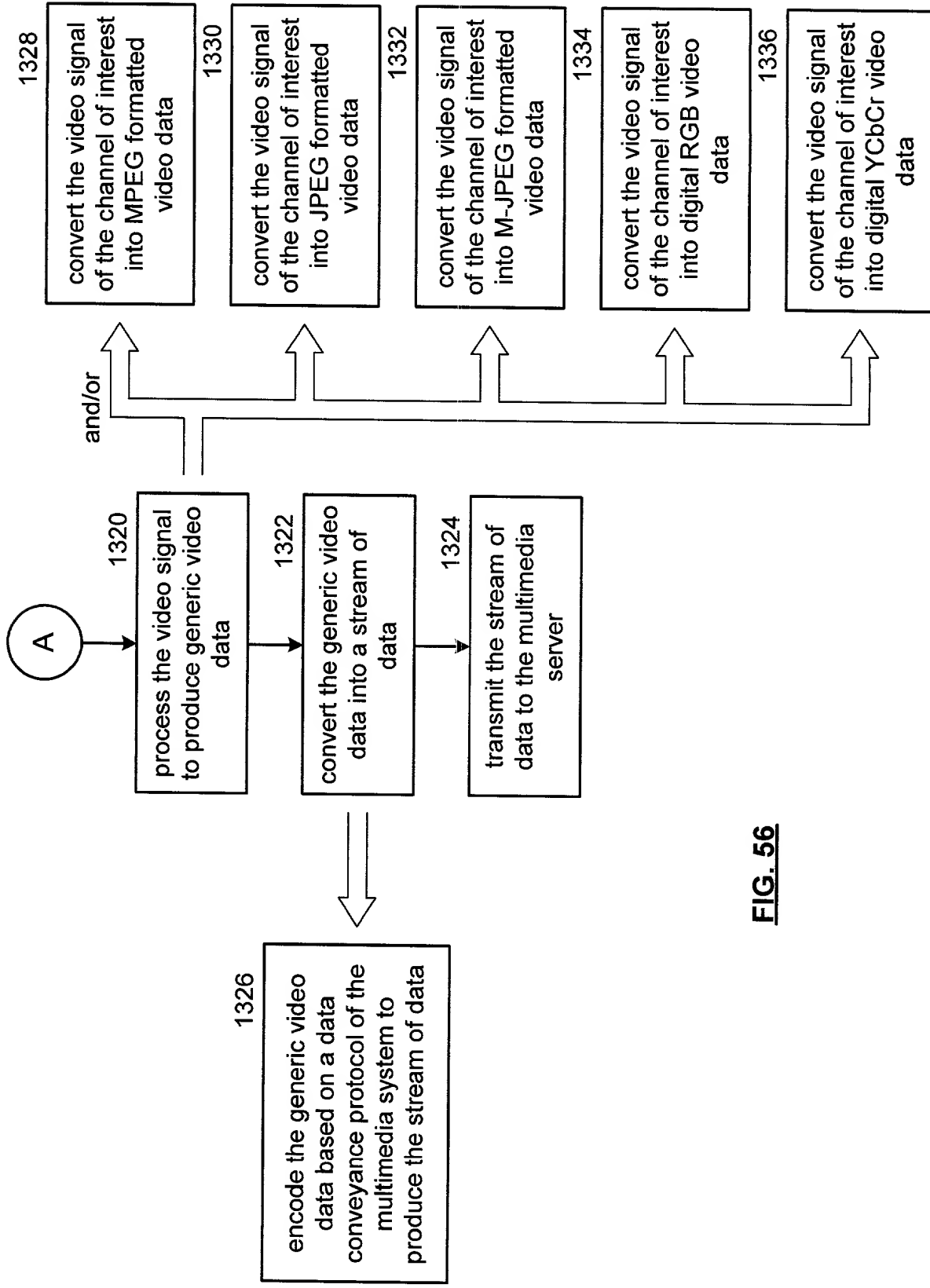


FIG. 56

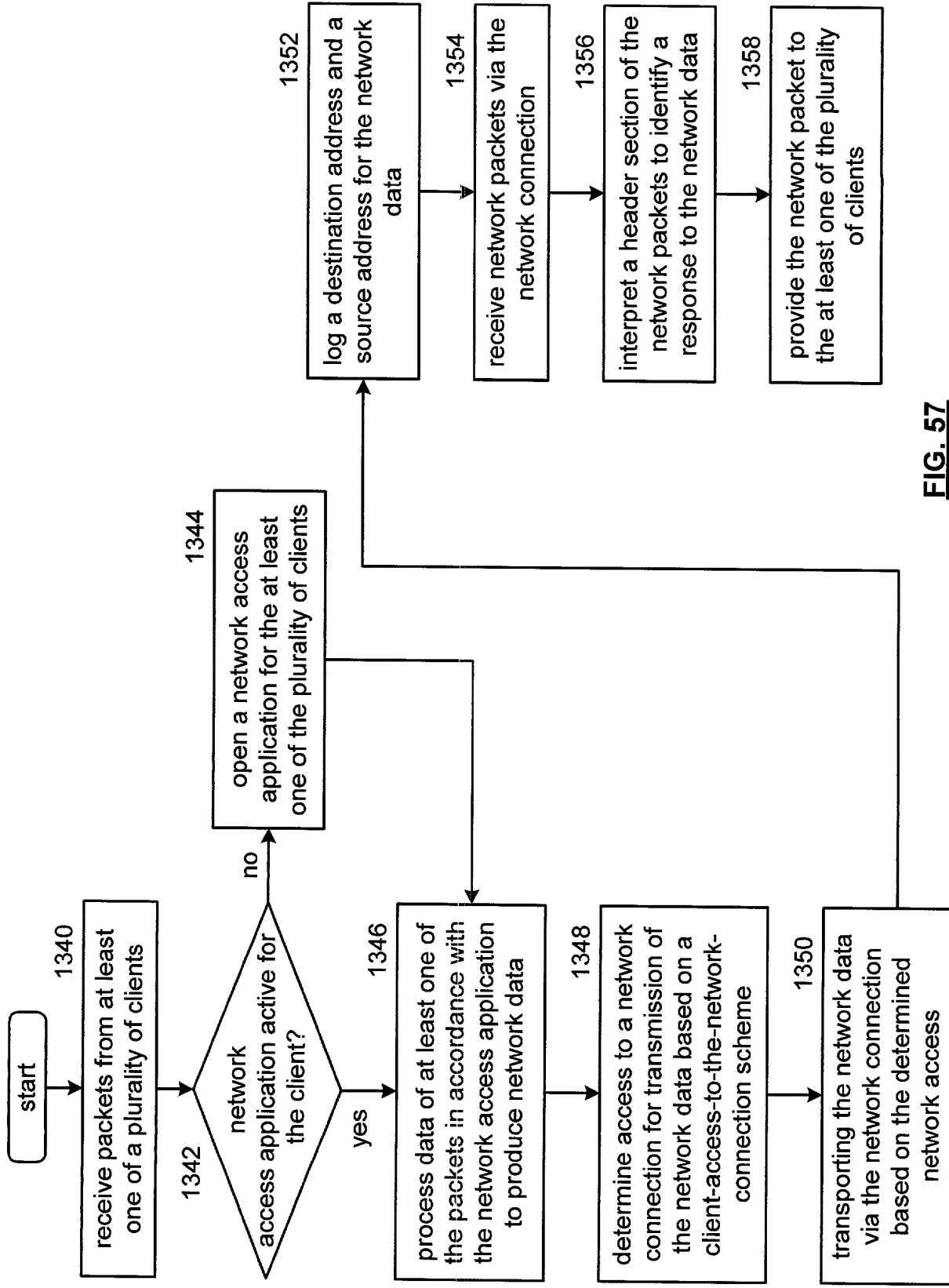


FIG. 57

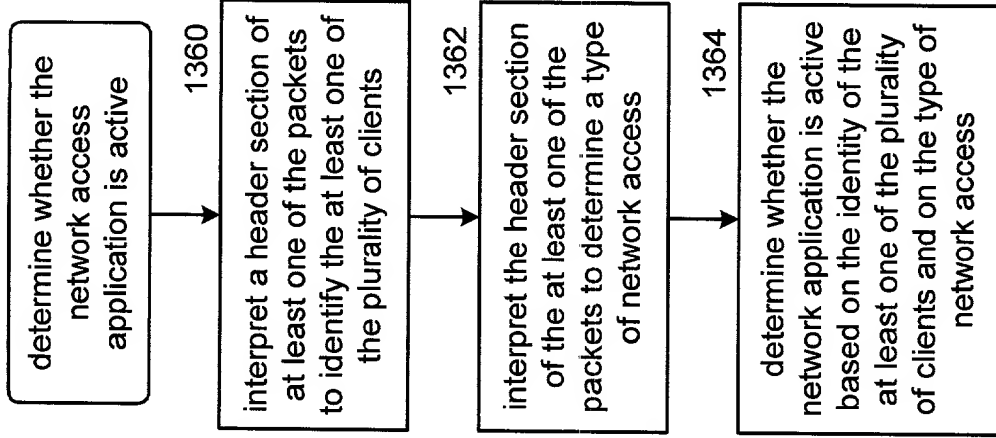


FIG. 58

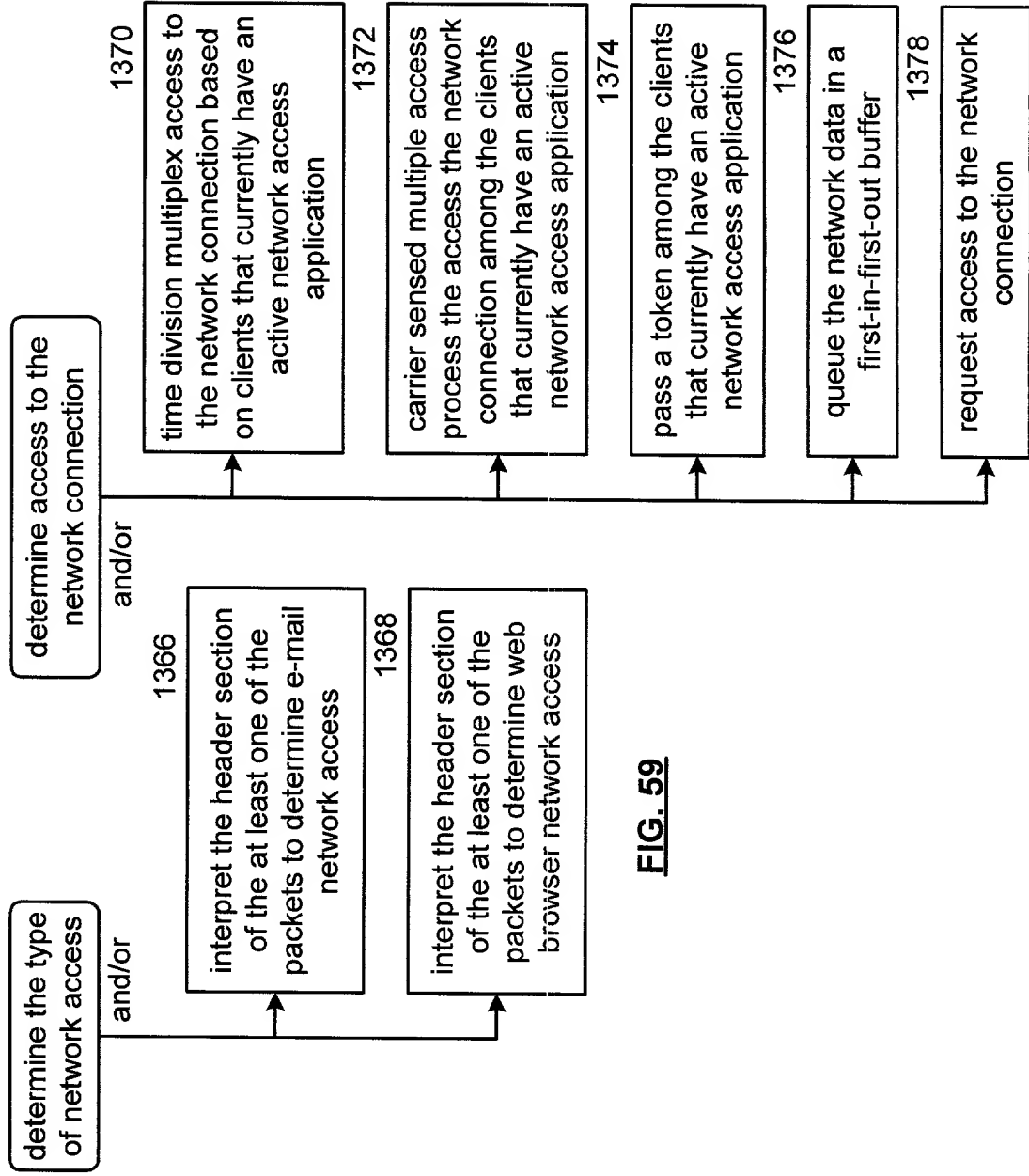


FIG. 60

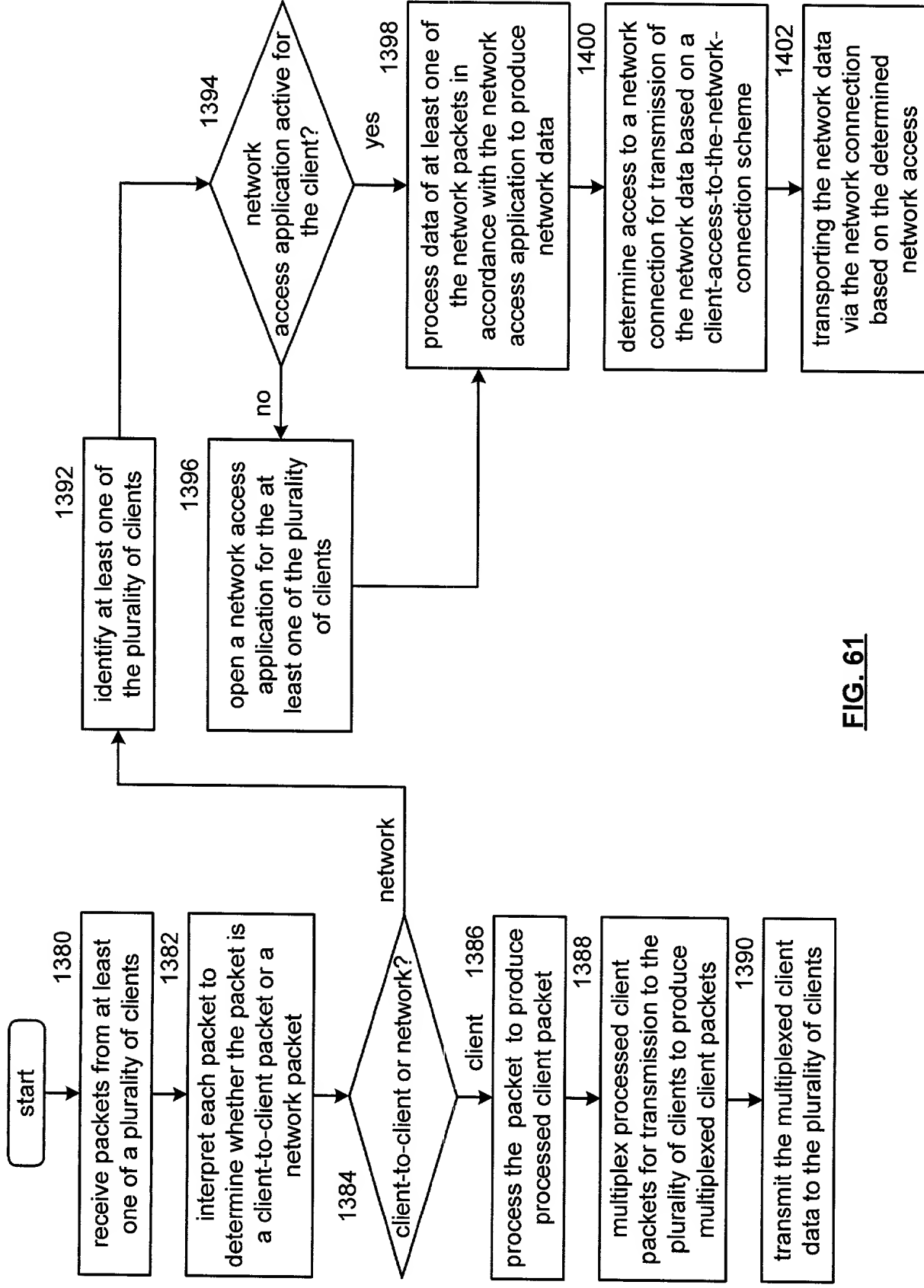


FIG. 61

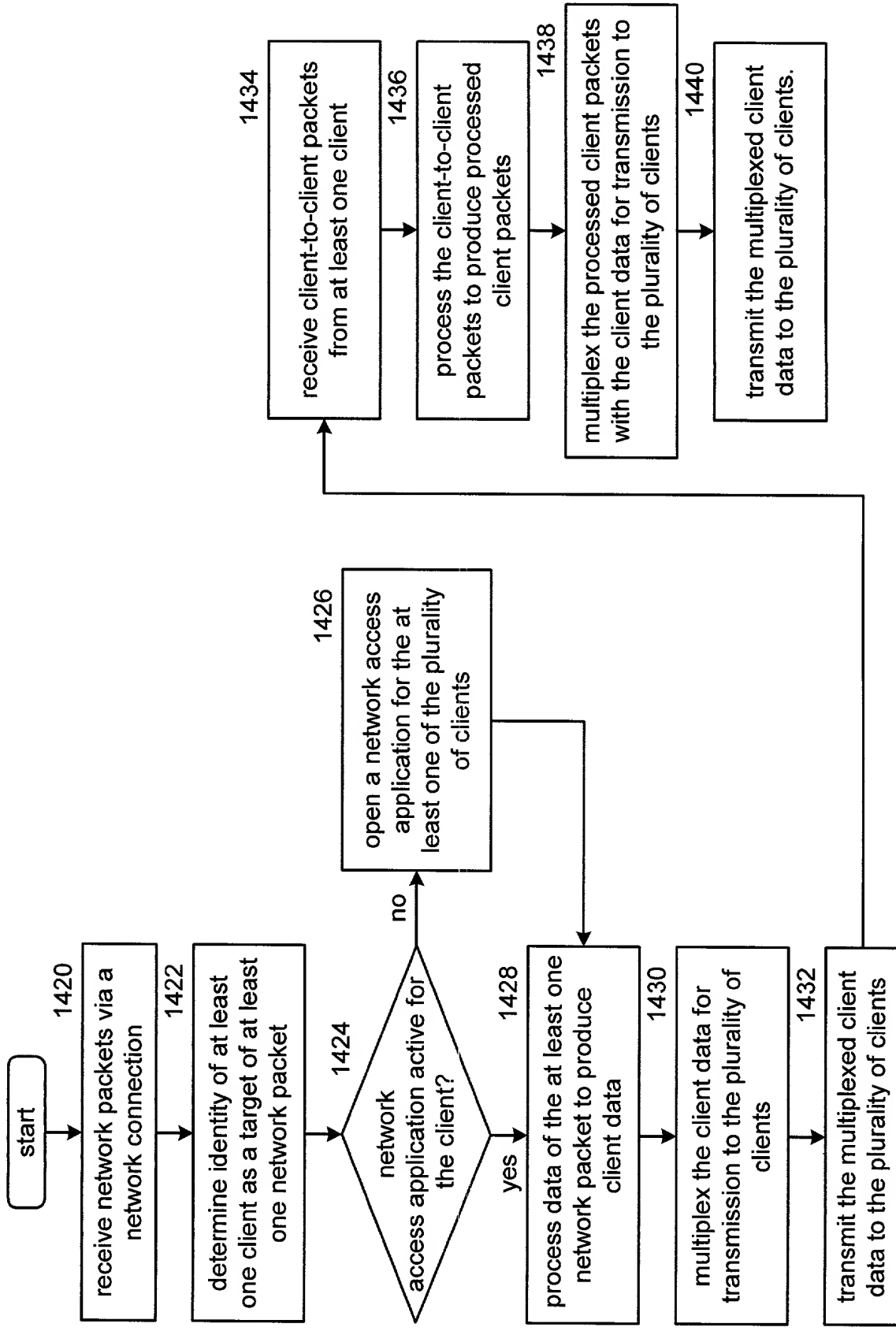


FIG. 62

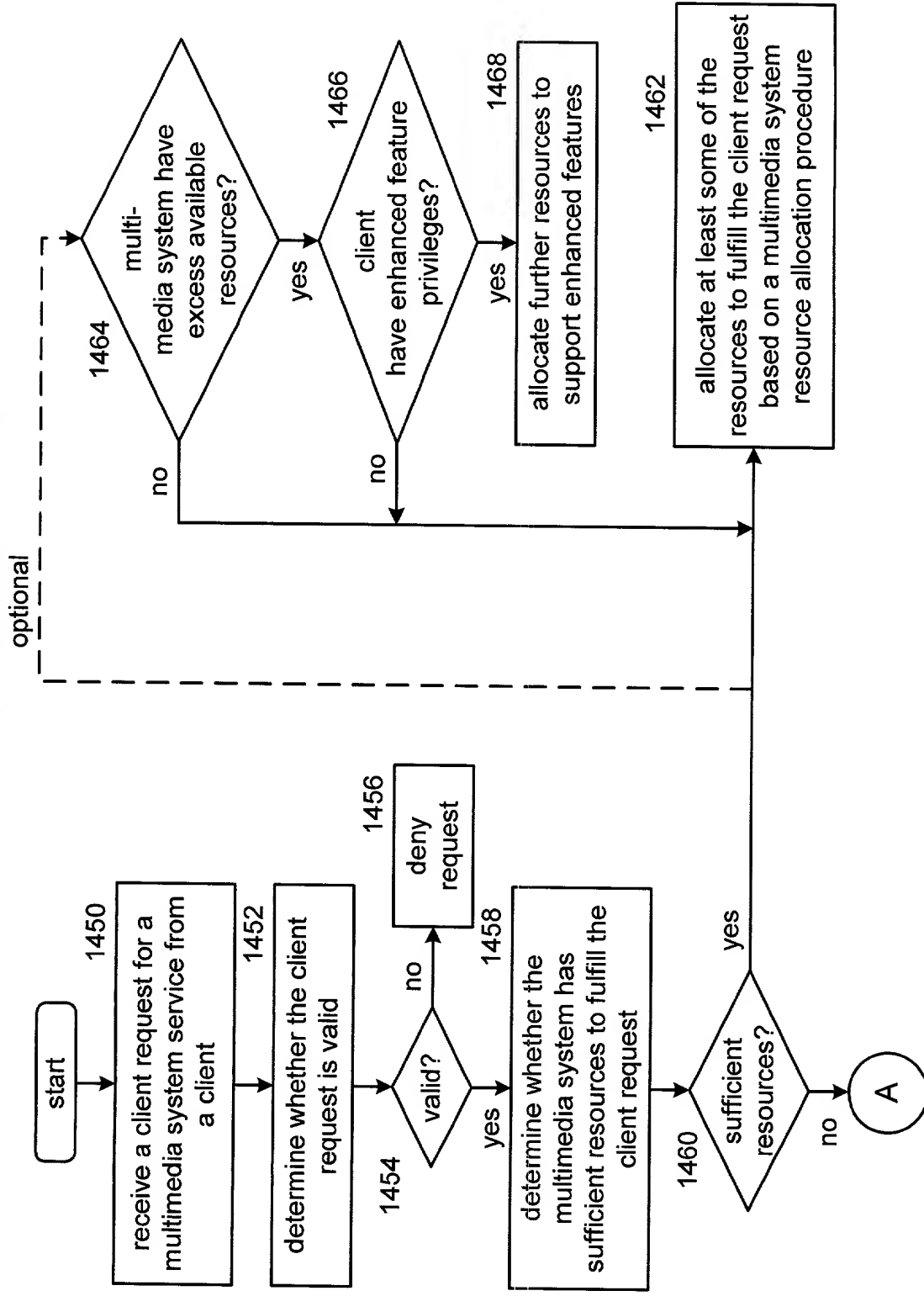


FIG. 63

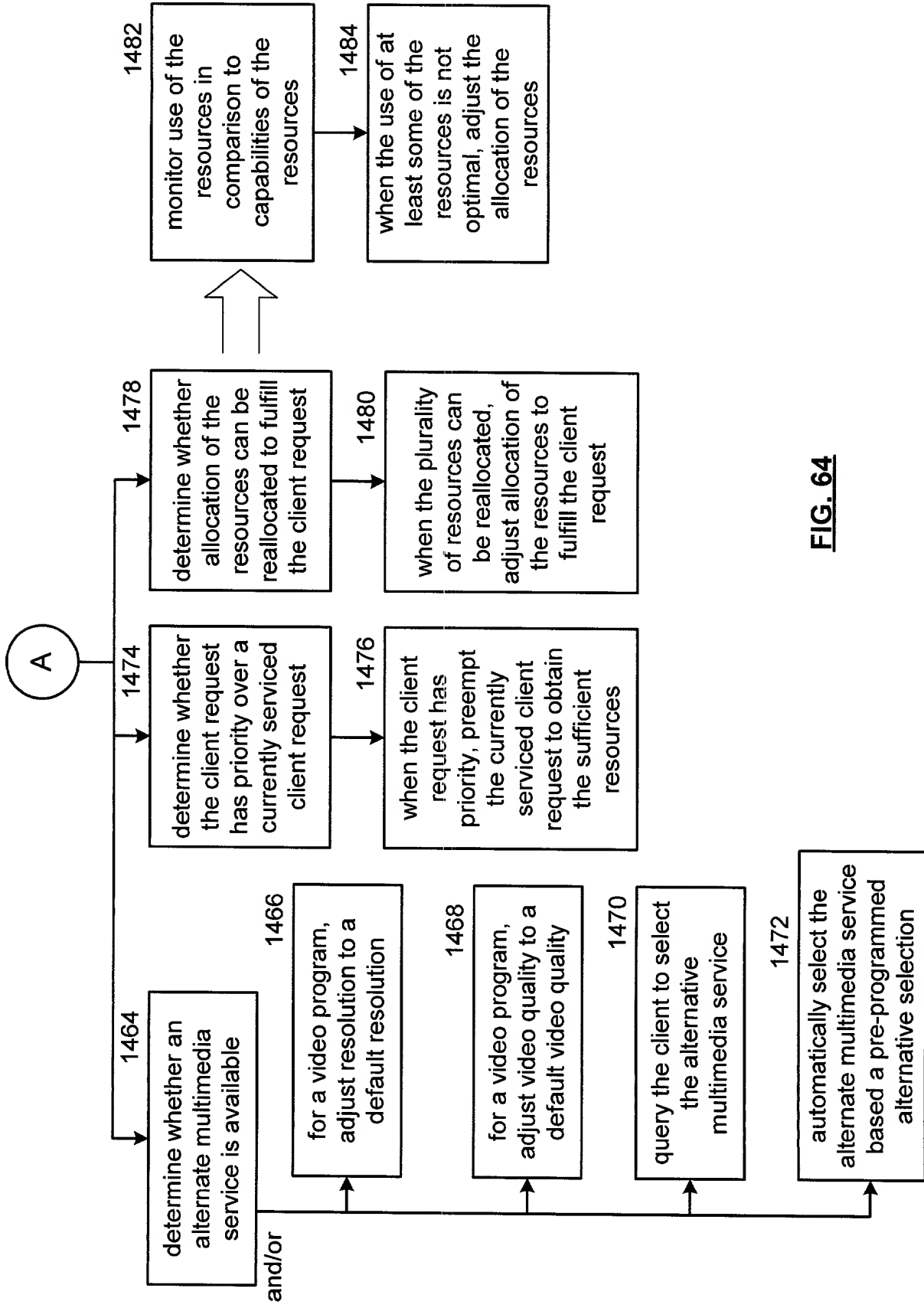


FIG. 64

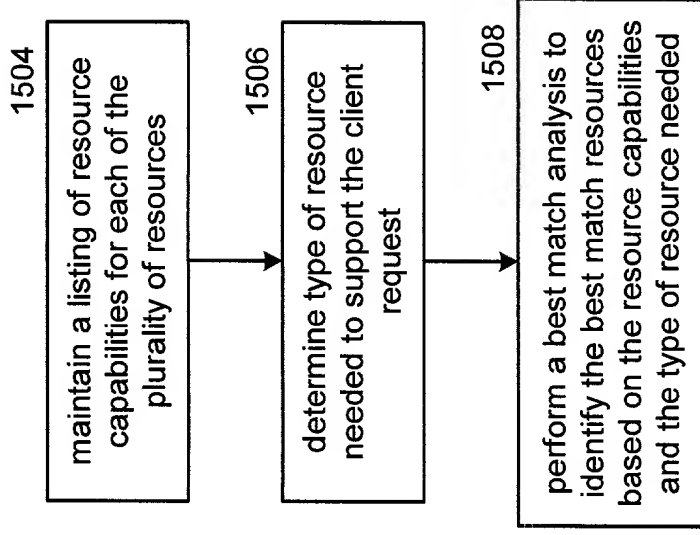
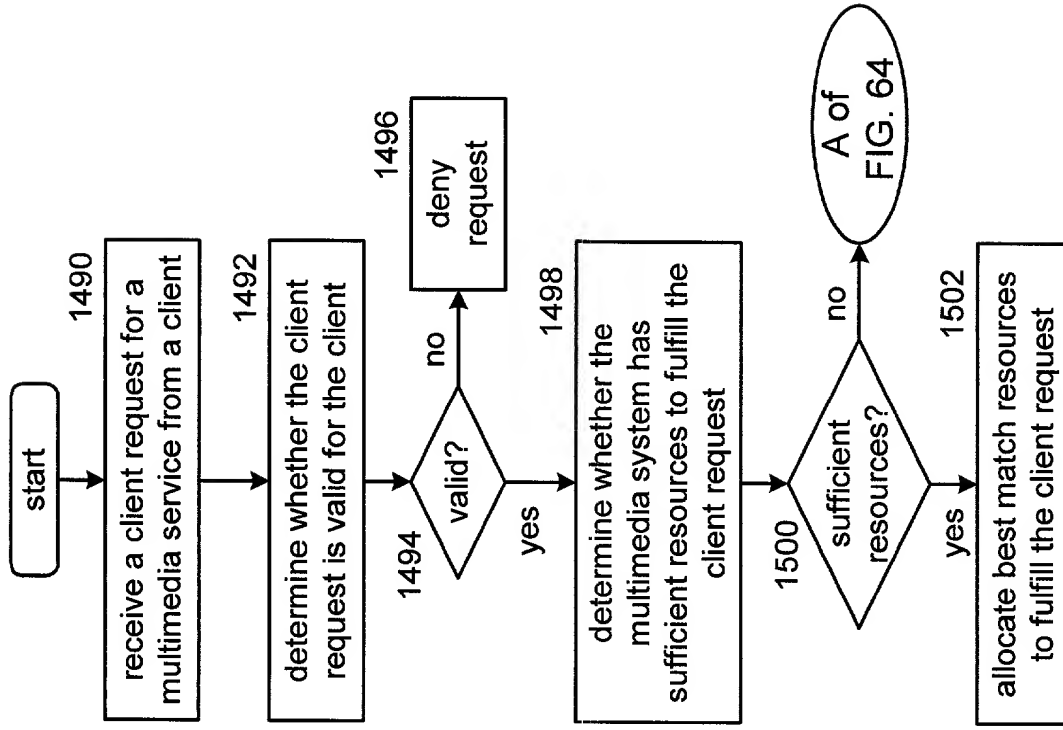


FIG. 65